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McDonnell Douglas Corporation
Douglas Aircraft Company

Long Beach and Torrance Facilities

Generic Storm Water Pollution Prevention Plan

October 1992

JMM James M. Montgomery

Serving the World's
Environmental Needs

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October 14, 1992

McDonnell Douglas
3855 Lakewood Boulevard
Long Beach, California 90846
Internal Mail Code 74-41

Attention: Scott Lattimore
Environmental Affairs

Dear Mr. Lattimore:

James M. Montgomery (JMM) is please to submit this final generic Storm Water Pollution Prevention Plan (SWPPP), for the Douglas Aircraft Company C-1 and C-6 facilities and the McDonnell Douglas Corporation West Airport facility. Also enclosed, please find a 3.5-inch diskette containing the above document.

The final Generic SWPPP has incorporated your comments. This generic SWPPP has the general information and basic format for the facilities to prepare more site specific SWPPPs. To guide you in the preparation of site specific SWPPPs, please use Appendix C "Checklist of required items in the SWPPP" and incorporate the site specific information in the SWPPPs as appropriate, specially for those information listed in our letter dated 29 September, 1992,

Thank you for the opportunity to assist you with the preparation of the generic SWPPP. Please do not hesitate to contact Ning-Wu Chang, Subhash Mendonça, or Beth Hochheiser at (818) 796-9141 if you have any questions.

Sincerely,
JAMES M. MONTGOMERY
CONSULTING ENGINEERS, INC.

Ning-Wu Chang

Ning-Wu Chang, Ph.D, PE
Senior Engineer

GENERIC STORMWATER POLLUTION PREVENTION PLAN

C-1, C-6 AND WEST AIRPORT FACILITIES

MCDONNELL DOUGLAS CORPORATION
DOUGLAS AIRCRAFT COMPANY

LONG BEACH/TORRANCE, CALIFORNIA

October 1992

Prepared for:

MCDONNELL DOUGLAS CORPORATION
DOUGLAS AIRCRAFT COMPANY
3855 Lakewood Boulevard
Long Beach, California 90846

Submitted by:

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OVERVIEW

1.1 PURPOSE OF DOCUMENT

Recent EPA regulatory changes require many industries and municipalities across the nation to apply for a National Pollutant Discharge Elimination System Permit (NPDES) for all stormwater discharges. The California State Water Resource Control Board (SWRCB) has elected to issue a statewide General Industrial Storm Water permit that will apply to all discharges requiring an EPA permit (except construction activities). This NPDES permit generally requires dischargers to:

1. Eliminate non-stormwater discharges (including illicit connections) to stormwater systems;

2. Develop and implement a storm water pollution prevention plan (SWPPP), and;

A generic SWPPP was developed for Douglas Aircraft Company (DAC) C-1 and McDonnell Douglas Corporation West Airport facilities located in Long Beach and the DAC C-6 facility located in Torrance. The generic SWPPP is to serve as a guidance for the detailed SWPPP as required for the General Industrial Storm Water permit issued by the SWRCB.

1.2 DOCUMENT ORGANIZATION

This document is divided into two main sections; an overview and a generic SWPPP. The overview section describes the purpose of this document, provides some regulatory background, and describes the SWPPP. The SWPPP section begin with an introduction of the requirements for the SWPPP as per the NPDES permit, followed by a SWPPP. The contents of the generic plan is based on available information, however, the format and necessary components of the plan is shown. Spaces are provided for detail information to be filled in by the parties responsible for generation of the SWPPP.

1.3 NPDES REGULATORY BACKGROUND

In 1972, the Federal Water Pollution Control Act (also referred to as the Clean Water Act (CWA)) was amended to effectively prohibit the discharge of pollutants to waters of the United States from any point source, unless the discharge is in compliance with an NPDES permit. The 1987 amendments to the CWA established a framework for regulating municipal and industrial stormwater discharges under the NPDES program. On November 16, 1990, EPA published final regulations that establish requirements for stormwater permits. The regulations require specific categories of industrial facilities which discharge stormwater associated with industrial activity (industrial stormwater) to obtain an NPDES permit. Facilities which discharge industrial stormwater either directly to surface waters or indirectly, through municipal separate storm sewers, must be covered by a permit. This includes the discharge of "sheet flow" through a drainage system or other conveyance.

The regulations allow authorized states to issue general permits or individual permits to regulate industrial stormwater discharges. The SWRCB has elected to issue a statewide general permit that will apply to all discharges requiring an EPA permit (except construction activities). To obtain authorization for continued and future industrial stormwater discharges, owners or operators (when the owners do not operate the facility) must submit a Notice of Intent (NOI) to be covered by the general permit. All dischargers covered by the permit will be required to begin implementing practices to prevent pollution of stormwater.

The SWRCB has elected not to accept EPA's group application approach or to adopt general permits for industrial groups at this time. All dischargers participating in group applications must either obtain coverage under the general permit or apply for an individual NPDES permit by October 1, 1992.

The various Regional Water Quality Control Boards (RWQCB) oversee implementation of the statewide general permit and authorize enforcement actions to ensure compliance. The following is a list of applicable federal, state, and regional regulations, criteria, and guidance documents pertinent to the NPDES stormwater discharge general permit:

1. Federal Regulation 40 CFR parts 122, 123, 124, and 504.

2. US Environmental Protection Agency (EPA): "National Pollutant Discharge Elimination System Permit Application Regulations for Storm Water Discharges; Final Rule," November 16, 1990.

3. US Environmental Protection Agency (EPA): "NPDES Best Management Practices Guidance Document," December, 1979.

4. California State Department of Health Services (DHS): "California Code of Regulations (CCR), Title 26, Division 22," April, 1990.

5. California State Water Resource Control Board (SWRCB): "Pollutant Policy Document," 1990.

6. California State Water Resource Control Board (SWRCB): "Statewide Water Quality Control Plans for Inland Surface Waters and Enclosed Bays and Estuaries" April, 1991.

1.4 WHO MUST OBTAIN A GENERAL PERMIT?

The California general permit is intended to cover all new or existing discharges composed entirely of industrial stormwater from facilities required by federal regulation to obtain a permit. If a stormwater discharge from a designated industrial activity is mixed with stormwater discharge from non-industrial activities on the same premises, the combined discharge is subject to permit application requirements. Unlike the federal permit, this general permit must extend to all facilities whether the activity is primary or auxiliary to the owner or operator of the facility. For example, even though a school district's primary function is education, it may operate a facility for maintenance of school buses. This maintenance facility is a transportation facility according to the California general permit and therefore needs to be permitted.

The federal regulations require specific categories of industrial facilities, which discharge stormwater *associated with industrial activity* (industrial stormwater), to obtain an NPDES permit. The regulatory definition of *associated with industrial activity* is based on the Standard Industrial Classification (SIC) codes. Facilities engaging in industrial activity that require a stormwater permit are listed by category in Title 40 of the Code of Federal Regulations (CFR) Section 122.26(b)(14). A summary of the activities defined under the regulations as industrial activities follows:

(i) Facilities subject to effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards.

(ii) Facilities classified as Standard Industrial Classification 20 through 39 (manufacturing industry);

(iii) Facilities classified as Standard Industrial Classification 10 through 14 (mineral industry) including active or inactive mining operations and oil and gas exploration, production, processing, or contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations;

(iv) Hazardous waste treatment, storage, or disposal facilities that are operating under interim status or a permit under Subtitle C of RCRA.

(v) Landfills, land application sites, and open dumps that receive industrial wastes and that are subject to regulation under Subtitle D of RCRA;

(vi) Facilities involved in significant recycling of materials, including metal scrap yards, battery reclaimers, salvage yards, and automobile junkyards;

(vii) Steam electric power generating facilities, including coal handling sites, and onsite and offsite ancillary transformer storage areas;

(viii) Transportation facilities classified as Standard Industrial Classification 40 through 45, and 47 which have vehicle maintenance shops, material handling facilities, equipment cleaning operations and airport deicing operations. Only those facilities or portion of facilities that are either involved in vehicle maintenance, loading, storage or unloading activities, or equipment cleaning operations or which are subject to another subparagraph under this paragraph are associated with industrial activity;

(ix) POTW lands used for land application treatment technologies, sludge disposal, handling or processing areas, and chemical handling and storage areas;

(x) Facilities classified as Standard Industrial Classification 15 and 16 (general building contractors and heavy construction contractors) including clearing, grading and excavation activities except operations that result in the disturbance of less than 1 acre total land area which are not part of a larger common plan of development or sale; or that are designed to serve single family residential projects, including duplexes, triplexes, or quadruplexes, that result in the disturbance of less than 5 acre total land areas which are not part of a large common plan of development or sale.

(xi) Manufacturing facilities where materials are exposed to stormwater. SICs 20-23, 25, 27, 30, 34-39, 265, 267, 283, 285, 323, 2434, and 4221-4225.

The SWRCB provides the following specific exemptions from the permitting requirements:

Discharges from construction activities of five acres or more (these are regulated under a different permit).

Discharges from facilities that have current NPDES permits containing stormwater provisions (eventually separate permits will be needed for industrial and stormwater discharges).

Facilities that discharge into municipal sanitary sewer systems or combined sewer systems or do not discharge to surface waters or storm sewers.

Facilities on Native American lands (these continue to be regulated by EPA).

Discharges from certain logging activities described under SIC 2411.

Oil and gas facilities that do not discharge reportable quantities as per Title 40 CFR Sections 117, 302, and 110 unless the discharge violates a water quality standard.

Mining facility discharges that do not contact any overburden, raw material, or intermediate, finished, waste, or by-product.

The McDonnell Douglas Corporation, Douglas Aircraft Company C-1, C-6 and C-17 facilities fall under categories (i), (ii), (viii), and (xi) listed on the previous pages.

1.5 WHAT ARE THE REQUIREMENTS?

Existing facilities regulated under the California general permit must have submitted a Notice of Intent (NOI), with the annual fee, to the SWRCB by March 30, 1992. Facilities that begin operation after March 30, 1992 must submit a complete and accurate NOI (with the annual fee) to the SWRCB 30 days prior to the beginning of operations. A copy of the NOI and its associated instructions can be found in Appendix A of the SWPPP.

For existing facilities (and new facilities beginning operations before October 1, 1992), the deadline to implement a SWPPP is October 1, 1992. For facilities beginning operations after October 1, 1992, a SWPPP shall be developed prior to submitting a Notice of Intent (NOI) and implemented when the facility begins operations. A copy of the NPDES general permit is included in Appendix B of the SWPPP.

1.6 WHAT IS A SWPPP?

A Storm Water Pollution Prevention Plan (SWPPP) is a document prepared by the stormwater discharger, which describes the various actions to be conducted at a site in order to prevent the contamination of stormwater runoff. All stormwater dischargers must prepare, retain on site, and implement a SWPPP. The SWPPP is not submitted to either the SWRCB nor the Regional Board. The SWPPP has two major objectives: 1) to help identify the sources of pollution that affect the quality of industrial stormwater discharges;

and 2) to describe and ensure the implementation of practices to reduce pollutants in industrial stormwater discharges. The permit prohibits non-stormwater discharges into the industrial stormwater system and is intended to authorize discharges composed entirely of industrial stormwater.

One of the most important aspects in developing the SWPPP is the evaluation of the various alternatives available to a specific facility to control the contamination of stormwater. These alternatives might include administrative actions such as employee training or reporting and inspection procedures, non-structural controls such as sweeping and other good housekeeping practices, or structural alternatives such as stormwater detention basins. In order to develop the most cost-effective plan, the various alternatives available must be considered for facilities individually, thus tailoring the facility SWPPP to the specific needs of an individual site.

A checklist summarizing the regulatory requirements for an SWPPP is included in Appendix C of the SWPPP.

1.7 OTHER SOURCES FOR INFORMATION

Additional sources of information which may be of assistance in preparing SWPPP and monitoring programs to conform with the NPDES general permit include:

Existing facility NPDES Industrial Wastewater permits;
Existing Spill Prevention Control and Countermeasure Plans (SPCC);
Business Plans submitted under AB 2185, and OSHA, Prop 65; and
Material Safety Data Sheets (MSDS) and related documents.

SECTION 2.0

STORM WATER POLLUTION PREVENTION PLAN

2.1 INTRODUCTION

The Storm Water Pollution Prevention Plan (SWPPP) is developed in compliance with the California NPDES general permit for Storm Water Discharge Associated with Industrial Activities (WQ Order No. 91-13-DWQ). The purpose of the SWPPP is to describe the various actions a site will undertake in order to prevent the contamination of stormwater discharge. The required elements and general descriptions of the plan are listed below:

Facility Location	A description of the facility location including such items as the city and state the facility presides, approximate distance and direction to a major city (if applicable), location in relation to freeway systems, cross streets, and/or surface waters, and descriptions of adjacent facilities (if applicable). A site vicinity map will be included to help describe the pertinent information.
Facility Site Description	A description of the facility including such items as types of ground surfacing; location and description of major facility features (i.e., buildings, piers, storage areas, parking lots, storage tanks, material loading/unloading areas); approximate size of facility (in acres or ft^2) and percent of impervious area; location of stormwater discharge outlets, catch basins, and drainage areas; boundary containment types (i.e., fences, walls, ditches). In order to clarify the site description, a plot plan(s) will be included showing the following features: (the following features may be included on any of the maps)

- Stormwater conveyance system;
- Outline of the stormwater drainage area for each stormwater discharge point (attained from topographic map);
- Paved areas and buildings;
- Areas of pollutant contact, actual or potential;
- Location of existing stormwater structural control measures (i.e., berms, coverings, curb and gutter);
- Location of any surface water;
- Areas of existing and potential sediment erosion, and;
- Vehicle service areas.

Labeling of the above items will be clear and concise. Additional features such as treatment facilities; material loading, unloading, and access areas; landscaping; and waste storage areas will also be labeled.

In addition to the plot plans(s), a topographic map will be included, extending one-quarter mile beyond the property boundaries of the facility. The map will show (the following features may be included on any of the maps) the facility, surface water including springs and wells, and all stormwater discharge points to either a municipal storm drain system or other water body. An outline of the stormwater drainage area for each stormwater discharge point will be clearly shown. If a topographic map is not available, the site will be surveyed to generate the elevations needed, or the surface runoff will be observed during an actual rainfall event to determine where all surface areas drain.

Multiple maps may be used to break up all required information into a more readable format. Information can be distributed among all the maps (i.e., site vicinity map, plot plan(s), topography map, stormwater drainage map) as long as all required information is included somewhere on the complete set of maps.

Facility Operation

Descriptions of facility operations will include outdoor storage, manufacturing, loading and unloading areas, and processing activities which discharge wastewater into the ocean or other surface water body. A description of any industrial stormwater discharge treatment facilities will also be included. Any known effluent concentration limits found from operations requiring wastewater or dual wastewater/stormwater NPDES permits will be mentioned to get an idea of the waste potential from that operation.

Facility Stormwater Drainage System

Any existing structural and non-structural control measures to reduce pollutants in stormwater discharge will be discussed. This includes the functions of surface structures (i.e., curb and gutter, berming, sandbagging, diversion ditches, etc.) and management practices associated with the drainage system (i.e., general housekeeping, operation location, etc.).

A separate stormwater drainage system map could be included to discuss drainage system attributes. This would improve the clarity of the plot plan by reducing the amount of information needed to be displayed on one map. This stormwater drainage map could include: (the following may be included on any of the maps)

- The stormwater conveyance and discharge structures including all catch basins and adjacent property inlets;
- Drainage patterns including curb and gutter, and berms locations;
- An outline of the stormwater drainage area for each stormwater discharge point; and
- Potential location of any surface water non-draining "ponding" areas.

Material Inventory

An inventory of various materials used or stored on a particular site (i.e., raw materials, intermediate products, waste) will be presented. The plot plan could show these materials storage and handling

locations. This will help in determining the potential pollution to stormwater discussed later in this section.

Material Handling and Management Practices

Documentation of existing material handling and management practices include:

- Methods of material handling in loading/unloading, and access areas;
- Materials, equipment, and vehicle management practices employed to minimize contact of significant materials with stormwater discharge;
- Sediment and erosion prevention, identifying measures to limit erosion around the stormwater drainage and discharge points;
- Methods of onsite storage and disposal of significant materials; and
- Outdoor storage, manufacturing, and processing activities including activities that generate significant quantities of dust or particulates.

The regulatory definition of *significant materials* is "raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of CERCLA; any chemical the facility is required to report pursuant to Section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges." The regulations state that significant materials include, but are not limited to the above list of compounds.

Potential Pollution to Stormwater

A list of pollutants that have a reasonable potential to be present in stormwater discharge in significant quantities, and an estimate of the annual quantities of these pollutants in stormwater discharge will be

included. Discussions of why certain chemicals are considered to have a reasonable potential of being in the storm water will also be included.

The regulatory definition of *significant quantities* is "the volume, concentrations, or mass of a pollutant in stormwater discharge that can cause or threaten to cause pollution, contamination, or nuisance, adversely impact human health or the environment, and cause or contribute to a violation of any applicable water quality standards for the receiving water." Effluent limitations established in Sections 208(b), 301, 302, 303(d), 304, 306, 307, and 403 of the Federal Clean Water Act (CWA), as amended, are applicable to stormwater discharges regulated by this permit.

Historical Spills or Leaks Stormwater System

Any significant materials that have spilled or leaked into significant quantities in stormwater discharge after November 19, 1988 will be discussed.

Questions such as when, where, and how the spill or leak occurred will be assessed. A list of significant spills or leaks of toxic or hazardous pollutants to stormwater must also be included. This list will include:

- Toxic chemicals (listed in 40 CFR 372) that have been discharged to stormwater as reported on EPA Form R;
- Oil or hazardous substances in excess of reportable quantities (see 40 CFR 110, 117 or 302).

A summary of existing sampling data (if any) describing pollutants in stormwater discharge will be included as well.

Management Control

The SWPPP describes the stormwater management controls appropriate for the facility. These Best Management Practices (BMP's) will reflect identified potential sources of pollutants at the facility.

Administrative Procedures

Administrative procedures addresses the topics of responsible parties, plan review, plan revision, reporting, and record keeping.

The SWPPP must include the signature of the person responsible for preparing the plan and must certify that he/she prepared the plan with accurate, and complete information.

A Pollution Prevention Committee (PPC) will be formed by the facility's management and the names and titles of the individuals in the committee will be included in the SWPPP. The PPC is responsible for overseeing the development, administration, and implementation of the SWPPP.

A record keeper will be chosen and certified by the PCC and will be responsible for handling all forms of recordkeeping material. Information being tracked by the record keeper will include:

- Personnel certification forms;
- Internal reporting procedures for spills of significant materials;
- Inspection records, both periodic and yearly (retained for five years);
- Follow-up procedures for response to inspections; and
- Plan inspection/review records.

The SWPPP will be amended whenever there is a change in construction, operation, or maintenance that may affect the discharge of significant quantities of pollutants to surface water, ground waters, or the local agency's storm drain system. The SWPPP will also be amended if it is in violation of any conditions of the general permit, or has not achieved the general objectives of controlling pollutants in stormwater discharges. Any amendments to the SWPPP will be recorded by a PPC committee member and include the date of amendment and the signature of the committee member.

Prior to the implementation of the SWPPP, it will be certified by the PCC or appropriate personnel in charge, that all non-stormwater discharges to any stormwater conveyance system or body of water have been eliminated. In addition, a description of any tests for the presence of non-stormwater discharges, the methods used, the dates of the testing, and any on-site drainage points that were observed during the testing will be written and submitted to the record keeper. If non-stormwater discharges cannot be eliminated prior to the implementation of the SWPPP, the Regional Board will be notified including justification for a time extension and a schedule, indicating when non-stormwater discharges will be eliminated.

2.2 FACILITY DESCRIPTION

2.2.1 Facility Location

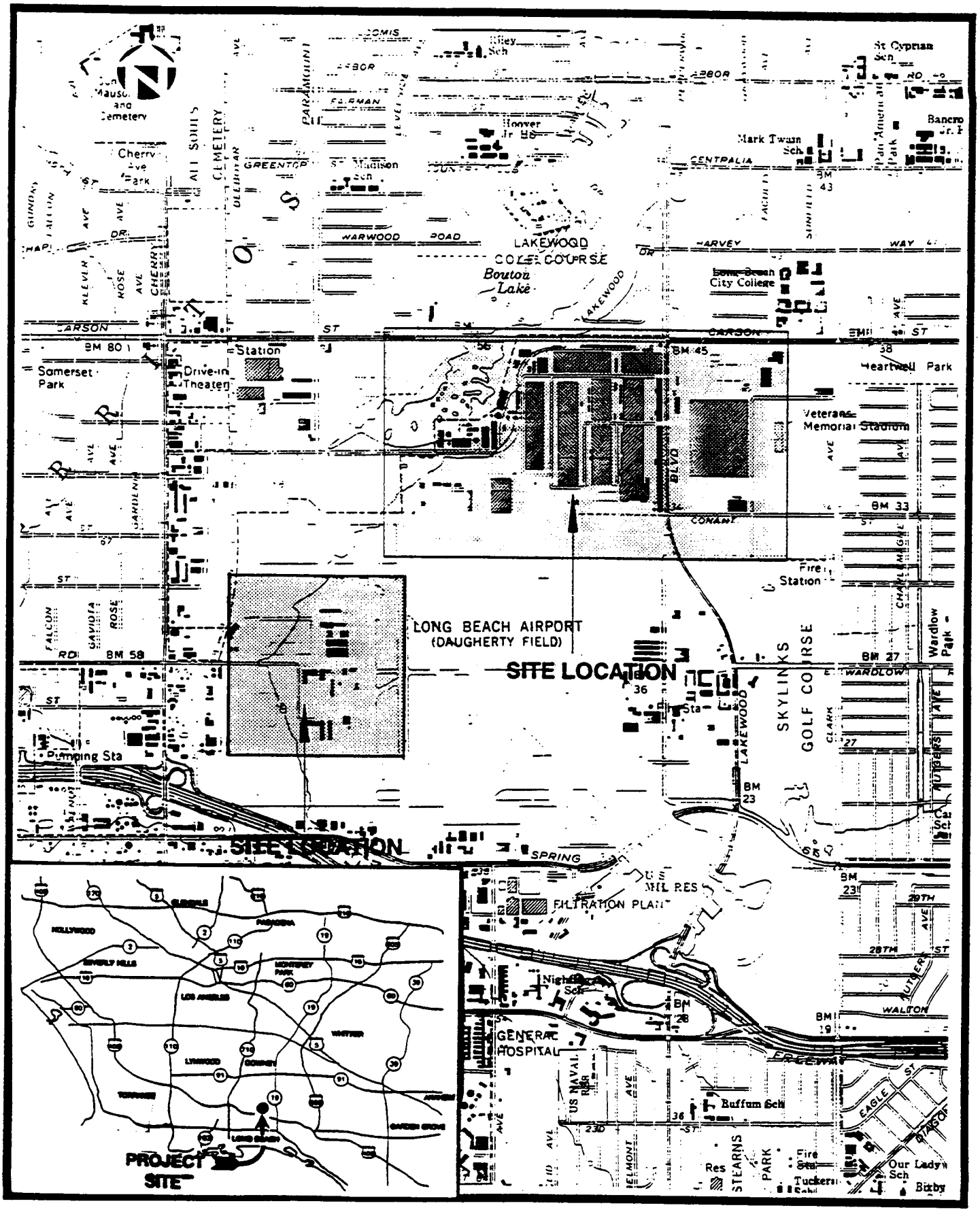
The Douglas Aircraft Company (DAC), a subsidiary of McDonnell Douglas Corporation, has one facility located in the city of Long Beach and one facility located in the city of Torrance (See Figures 1a and 1b). The McDonnell Douglas Corporation has one facility located at West Airport, Long Beach. The facilities located in Long Beach are designated as the C-1 facility and the West Airport facility and the facility located in Torrance is designated as the C-6 facility. Long Beach is an incorporated city within Los Angeles County, located 23 miles south of the city of Los Angeles. Torrance is an incorporated city within Los Angeles County, located 19 miles southwest of the city of Los Angeles. The C-1 facility is located on the northern perimeter of the Long Beach Airport (Daugherty Field), south of Carson Street, East of Cherry Avenue, northeast of the C-17 facility and north of US Interstate 405. The West Airport facility is located on the western perimeter of the Long Beach Airport (Daugherty Field), south of Carson Street, East of Cherry Avenue, southwest of the C-1 facility and north of the US Interstate 405. The C-6 facility is located south of 190th Street and US Interstate 405, east of Western Avenue and west of US Interstate 110.

Plots adjacent to the C-1 facility include the Lakewood Golf Course to the northwest and to the north, the Long Beach Airport to the south and southwest, Veterans Memorial Stadium to the east and Long Beach City College to the northeast. Plots adjacent to the C-6 facility include International Light Metals to the west, Montrose Chemical Industries to the southeast and commercial and residential areas to the north and east.

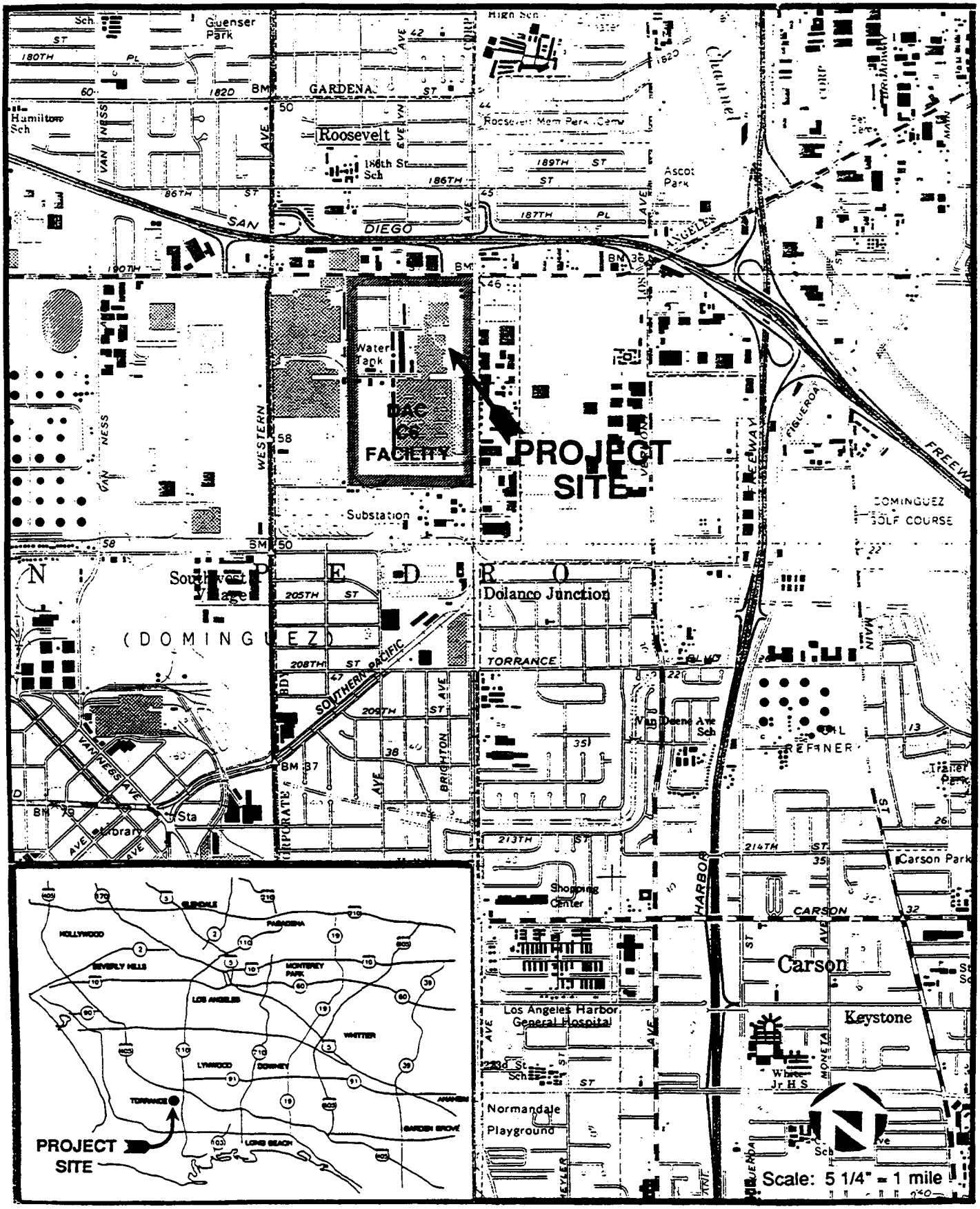
2.2.2 Facility Site Description

The primary operations conducted at the C-1 facility include the assembly, painting, alodining, testing, storage and delivery of the MD-11 and MD-80 commercial aircraft. Most of the parts associated with the assembly of these aircraft are manufactured elsewhere, however some parts fabrication is conducted at the C-1 facility. Support activities like chemical storage, parts subassembly, chemical milling operations, parts fabrication, metal finishing, tank farms, machining operations, hazardous waste storage, maintenance of vehicles utilized by the C-1 and West Airport facilities, maintenance of the C-1 facility, vehicle/aircraft washing, aircraft fueling operations, and wastewater pretreatment are also conducted at various buildings and locations within the C-1 facility. Figure 2a presents the C-1 facility plot plan. The C-1 facility encompasses _____ acres (ft^2) in area of which _____ percent is paved.

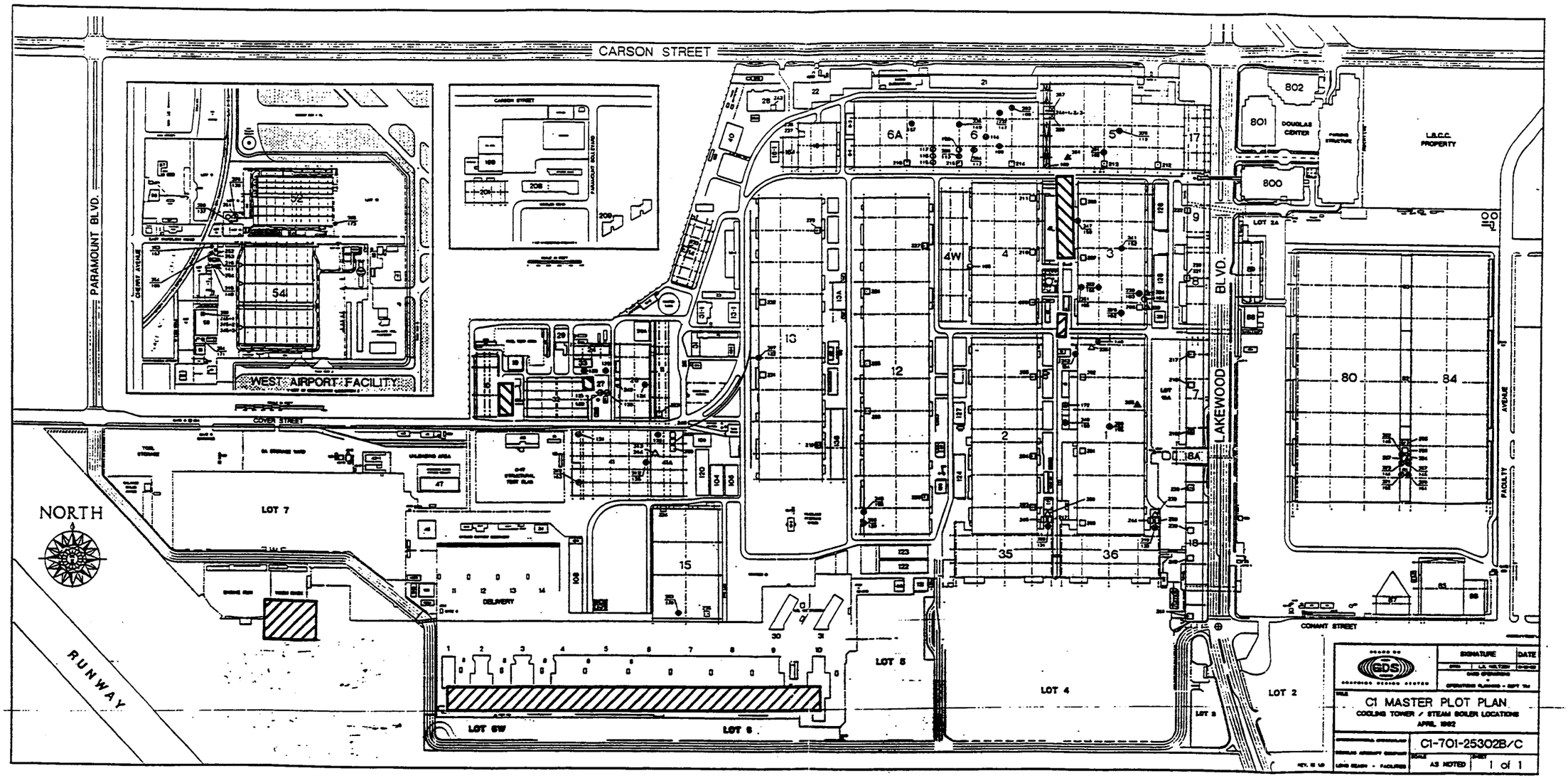
The primary operations conducted at the C-6 facility include the fabrication, subassembly, painting, alodining, testing, storage and delivery of the some parts utilized in the assembly of the MD-11 and MD-80 commercial aircraft and the C-17 military aircraft. Support activities like chemical storage, chemical milling operations, metal finishing, machining



SITE VICINITY MAP - C-1 AND WEST AIRPORT FACILITIES
FIGURE 1a



SITE VICINITY MAP - C-6 FACILITY
FIGURE 1b



AREA WITH POTENTIAL FOR STORM WATER POLLUTION

PLOT PLAN - C-1 FACILITY
FIGURE 2a

operations, hazardous waste storage, maintenance of vehicles utilized by the C-6 facility, maintenance of the C-6 facility, and wastewater pretreatment are also conducted at various buildings and locations within the C-6 facility. Figure 2b presents the C-6 facility plot plan. The C-6 facility encompasses _____ acres (ft^2) in area of which _____ percent is paved.

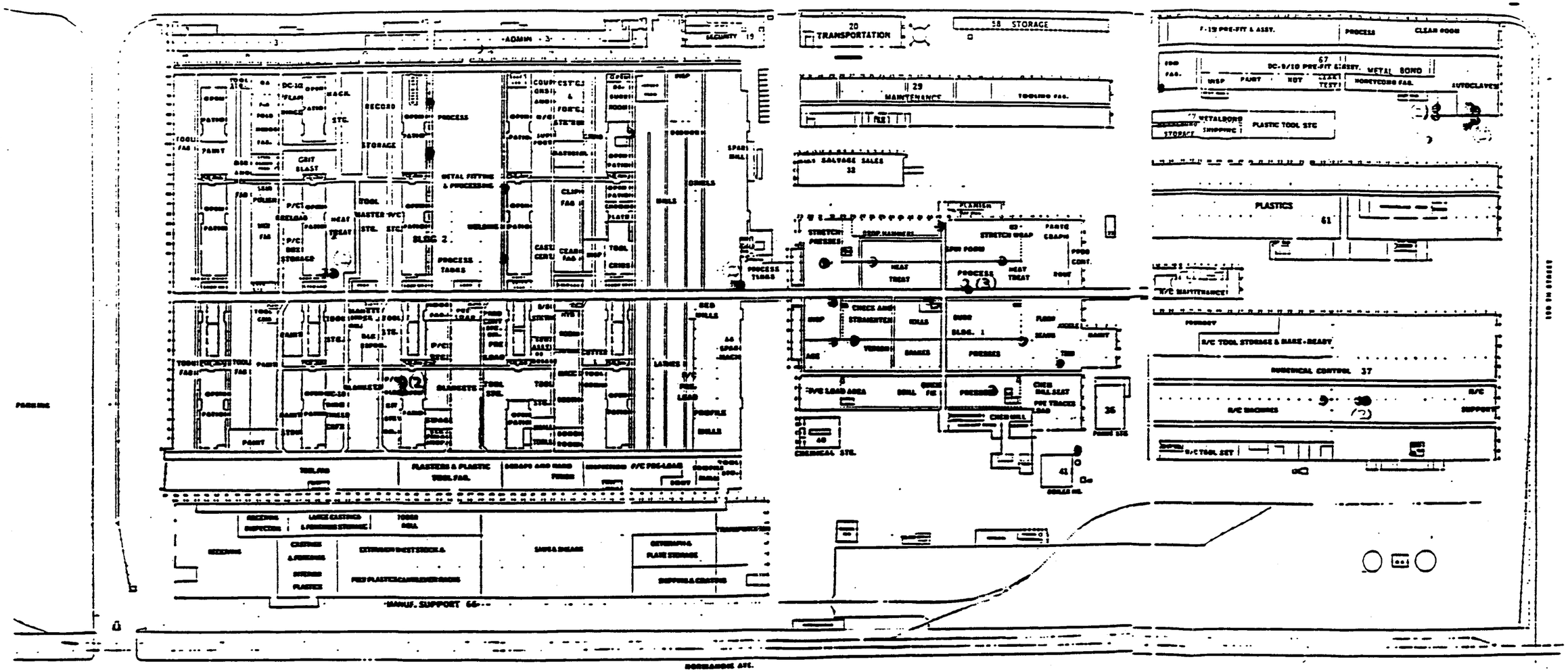
The primary operations conducted at the West Airport facility include the assembly, painting, alodining, testing, and delivery of C-17 military transport aircraft. All parts associated with the assembly of this aircraft are manufactured/fabricated elsewhere. Support activities like hazardous waste storage, vehicle washing, aircraft fueling operations, maintenance of the West Airport facility, and wastewater pretreatment are also conducted at various buildings and locations within the West Airport facility. Figure 2c presents the West Airport facility plot plan. The West Airport facility encompasses _____ acres (ft^2) in area of which _____ percent is paved.

2.2.3 Facility Operation

Douglas Aircraft Company (DAC) and its parent company, McDonnell Douglas Corporation conduct a diversified range of activities revolving around the manufacturing of military and commercial aircraft. The C-1 facility focuses on production of commercial aircraft, the West Airport facility focuses on the production of military aircraft and the C-6 facility manufactures aircraft parts supporting both the C-1 and West Airport operations. Manufacturing operations at all three facilities include some or all of the following: metal finishing, plastics fabrication, painting, degreasing, machining, assembly and sub-assembly, as well as facility operation activities such as maintenance, garage services, wastewater treatment, and hazardous materials and waste handling. The sections to follow provide brief descriptions for the operations conducted at the three facilities.

Paint and Chemical Storage. The Paint Storage Building (Building 10) at C-1 Facility is used to store virgin products utilized in the metal finishing processes and final painting operations conducted within the C-1 and West Airport facilities. Materials stored in Building 10 include adhesives, solvents, epoxies, lubricants, strippers, cutting oil, acids and caustic. Most material handling activities including receiving and transfer of materials are conducted inside Building 10. Requisitioned materials are transported from Virgin chlorinated solvents and oil are stored in an area between buildings 29 and 33. 1,1,1-Trichloroethane is stored in aboveground tanks called Liqua-Bins at the C-6 facility. Building 10 uses electric tugs fitted with "Mercury Flats" to transport chemicals containers. Similar procedures exist at the C-6 facility for buildings 36 and 40. The storage and handling of hazardous materials within the C-1, C-6 and West Airport facilities is conducted in accordance with the guidelines outlined in Douglas Process Standard 4.50-1 (DPS 4.50-1) "Storing and Handling Finishing Materials and Related Items." This Process Standard specifies the engineering requirements for storing and handling finished materials and related items pending use (See Appendix F).

LOCATION C6 PLANT LAYOUT



N

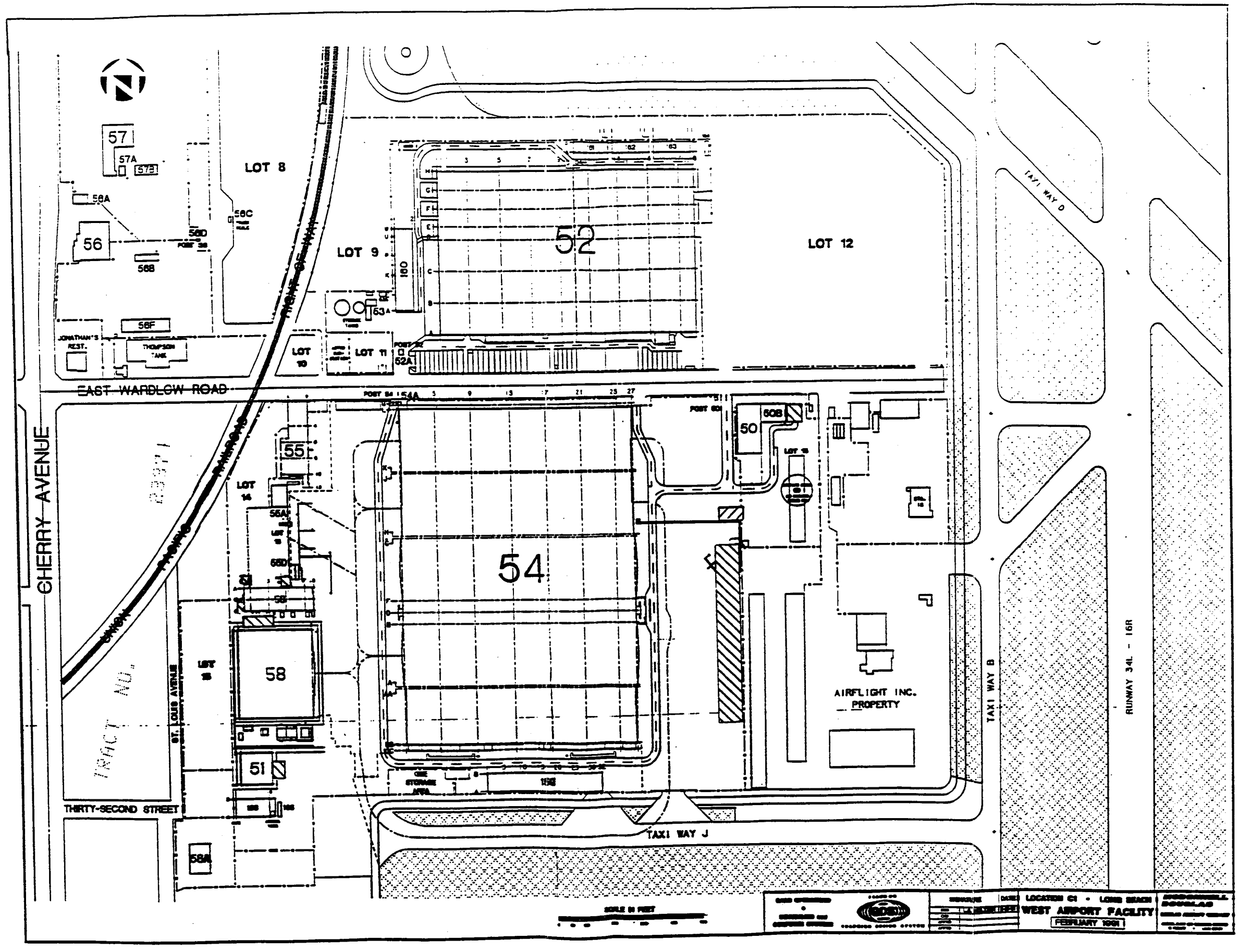
Scale
0 50 100 feet

● DENOTES COOLING TOWER LOCATION (APPROXIMATE)

PLOT PLAN - C-6 FACILITY
FIGURE 2b

DOUGLAS AIRCRAFT CO.

Note: Base map - Douglas Aircraft Co. drawing No. C6-701-25006 PP



AREA WITH POTENTIAL FOR STORM WATER POLLUTION

PLOT PLAN - WEST AIRPORT FACILITY
FIGURE 2c

Cyanide Storage. Building 33 at the C-6 facility is divided into two distinct sections by a solid wall. One side is used to store miscellaneous solid materials. The other side stores cyanide which is used in the cyanide process in building 2 at the C-6 facility.

Coolant Storage. Both virgin and spent coolant are stored in covered tanks at all three facilities.

Solid Material Storage. Solid materials such as parts, process equipment supplies and general manufacturing supplies, not including chemicals, are stored in Buildings 57 and 66 at the C-6 facility. No hazardous materials are used or stored in these buildings. Building 2 at the C-6 facility is also used for storage of solid materials, as well as manufacturing.

Building 58 at the C-6 facility is a storage yard which is partially covered with an awning and the other part is open air. For the most part, it is used for metal storage, and some maintenance supplies like plaster patching. The area is also set up for Oxy-Acetylene Welding. For the most part, items are stored under the covered area.

Soiled Rag Bins/Drums. Soiled rags bins/drums are located throughout the C-1, C-6 and West Airport facilities. These bins/drums are red in color and contain lids to prevent accumulation of storm water in the bins/drums. At the C-1 and C-6 facilities, when a bin is full, the soiled rags are removed and transported to the hazardous waste storage area where the soiled rags are consolidated and stored in bags. An outside contractor periodically transports these bags to a rag laundering and recycling facility. At the West Airport facility the soiled rags are dumped and transported to an approved incineration facility for incineration.

Tank Farm. The C-1 facility operates two tank farms which supply fuel to aircraft at the West Ramp. The tank farms include underground storage tanks (USTs) and piping.

Aircraft Fuel Tank Testing. Aircraft fuel tank testing refers to the testing of the integrity of the fuel tanks located in the wings of the aircraft. The aircraft fuel tank testing area at the C-1 facility is located to the north of Buildings 10 and 19, and to the west of Building 29. Aircraft fuel tank testing is conducted at the Fuel Test Area. The test fuel used for aircraft fuel tank testing, Jet A, is stored in three 15000-gallon, double walled USTs with leak detection systems located to the north of Building 25A.

At the West Airport facility, the testing is done both with jet fuel and with an oil (Golden Bear Oil) which simulates the properties of jet fuel but is less expensive, less flammable and red in color. Fuel is pumped into the fuel tanks while the tank is subjected to the integrity testing procedures.

Fuel Dumping. Positions 30 and 31 at the West Ramp of the C-1 facility (as shown in Figure 2a) are equipped to test the fuel dumping mechanisms of aircraft. The fuel dumping mechanism is a safety system installed on the aircraft which is used in the event that an aircraft needs to land with a full fuel load.

Compressor and Boiler Houses. The Compressor House (Building 27 at C-1 and Building 55 at West Airport) contain boilers and compressors to provide steam and plant air for the various processes and operations conducted at the C-1 and West Airport facilities.

Building 44 at the C-6 facility houses emergency generator equipment. Building 41 at the C-6 facility houses the boilers used to provide steam and plant air for the various processes and operations conducted at the C-6 facility. There are two 50,000 gallon USTs just north of Building 41 which contain #2 oil for the purpose of backup fuel for the boilers.

Cooling Towers. There are cooling towers employed throughout the C-1, West Airport and C-6 facilities as shown in Figures 2a and 2b.

Metal Chip Compactor. A metal chip compactor located outdoors south of Buildings 3 and 4 at the C-1 facility, is used to consolidate the metal chips generated as a result of machining operations conducted at the C-1 facility.

Aircraft Wash Area. The Aircraft Wash Area is located west of the West Ramp and south of the automobile parking lot no. 7 at the C-1 facility. Typical operations conducted at the Aircraft Wash Area include washing of aircraft using detergents, degreasers and solvents (to remove alodine coatings) and occasional final touch up work before delivery of the aircraft.

Steam Cleaning. The Vehicle Wash Area for West Airport facility is located east of Building 50.

Between Buildings 66 and 45 at the C-6 facility is a steam cleaning pad. This pad is used for cleaning vehicles used at the C-6 facility.

Maintenance. Operations conducted in Buildings 14, 20, 23 and 30 at the C-1 facility and Building 50 at the West Airport facility include maintenance of the C-1 and West Airport facilities structures. Welding operations are conducted in Building 31 at the C-1 facility. Maintenance operations include wood work, welding, metal bonding, painting and cleaning. All operations are conducted indoors.

Building 29 at the C-6 facility conducts typical facility maintenance activities such as woodworking, metal working, painting and cleaning. Building 34 maintenance supports the numerically controlled (N/C) Machine Shop.

Garage (Vehicle Maintenance). Vehicle maintenance is conducted in Building 11 for the C-1 and West Airport facilities and Building 20 at the C-6 facility. Most of the garage duties are performed by an outside contractor. Operations conducted include routine maintenance and repair of vehicles. This includes changes of oil and filters, antifreeze, lube oil, brake fluid, and transmission and power steering fluids. Hazardous materials and wastes are typically stored within the building.

Salvage/Scrap Procedures. Procedures for handling scrapped and salvaged process equipment are as follows:

1. Identify if the equipment was in contact with hazardous materials.

2. If hazardous materials were in contact with the equipment, the equipment is sent to the hazardous waste yard.

3. The personnel at the hazardous waste yard will ensure that any liquid materials have been drained from the equipment, dispose of the material, and decontaminate the piece of equipment.

4. The decontaminated piece of equipment is sent to the scrap/salvage yard, pending disposition.

Testing Support. Testing of aircraft components and aircraft are conducted in Buildings 24, 29, 33, 41 and 46 at the C-1 facility. The tests conducted on the aircraft include pneumatic tests, aircraft interior pressure tests, metal fatigue tests, durability tests, acoustics tests, "lightning" tests and static tests. The "lightning" tests are conducted in Building 51 at the West Airport facility.

Fabrication Support. Operations conducted in Buildings 16 and 22 at the C-1 facility include fabrication of plastic components including windows for aircraft. All operations are conducted indoors.

Laboratory Support. Buildings 28 and 32 at the C-1 facility are laboratories which provide laboratory support to the C-1 facility.

Aircraft Assembly and Fabrication. Operations conducted in Buildings 12, 13, 15, 80 and 84 at the C-1 facility and Buildings 52 and 54 at the West Airport facility include subassembly and final assembly of MD-11 and MD-80 commercial aircraft at the C-1 facility and West Airport military transport aircraft at the West Airport facility.

Operations conducted in Buildings 3, 4, 5, and 6 at the C-1 facility include plating, alodining, anodizing, metal bonding, plastics and metal fabrication and subassembly. Chemical milling operations are conducted in Building 5. All operations in Buildings 3, 4, 5, and 6 are conducted indoors.

Painting. Painting, stripping and alodining operations are conducted in Buildings 85, 86 and 87 at the C-1 facility and in Buildings 58 and 59 at the West Airport facility. All painting, stripping and alodining operations are conducted indoors, in accordance with DAC SPSs for coatings and finishes.

Degreasing. Degreasing is the process of removing surface grime, oil, and grease from metal. A vapor degreaser is a tank containing a quantity of solvent (1,1,1-Trichloroethane) that is heated to its boiling point. The solvent vapor rises and fills the tank to an elevation determined by the location of a condenser. The vapor condenses and returns to the liquid sump. The tank has a freeboard that extends above the condenser to minimize air currents inside the tank. Degreasing operations are conducted throughout the C-1 and C-6 facilities.

Metal Bonding and Fabrication. Building 67 at the C-6 facility involves operations with metal. The processes in this building are primarily metal preparation and bonding. Douglas Aircraft Company Process Standards detail the many processes conducted at the C-6 facility for metal processing. Essentially, the preparation involves chrome anodizing.

Plastics Processing. Plastic fabrication and bonding are conducted in Building 61 at the C-6 facility. The processes conducted in this building include plastics molding, bonding, painting, polishing, curing, and cutting. Chemicals typically used in the process are plastics and composites, paint, solvents, polishing compounds.

Machining Operations. Machine shops are located in Building 37 and the north side of Building 2 at the C-6 facility, Buildings 1, 2, 3, 4, 15 and 26 at the C-1 facility and Building 52 at the West Airport facility. DAC uses N/C high precision machines to cut, mill and process metal. The N/C machines use a computer to guide the machine's operation. Metal parts are processed on the machines using a cooling oil which cools the machine bit and acts as a lubricant.

Chemical Milling. Building 1, 2, and 12 at the C-6 facility contain chemical milling processes. Chemical milling is the process of milling a piece of metal by etching the surface with a caustic solution of sodium hydroxide and iron salts.

Maskant Spraying. On the east side of Building 1 at the C-6 facility there is a maskant spraying operation. The maskant is a Perchloroethylene based material which is sprayed onto parts as part of the manufacturing process.

Cyanide and Anodizing Process. A cyanide solution is used in conjunction with the chrome anodizing process for metal preparation and finishing. Metal parts are processed through a series of dip and rinse tanks to apply the protective coating. All of these processes take place inside of Building 2 at the C-6 facility.

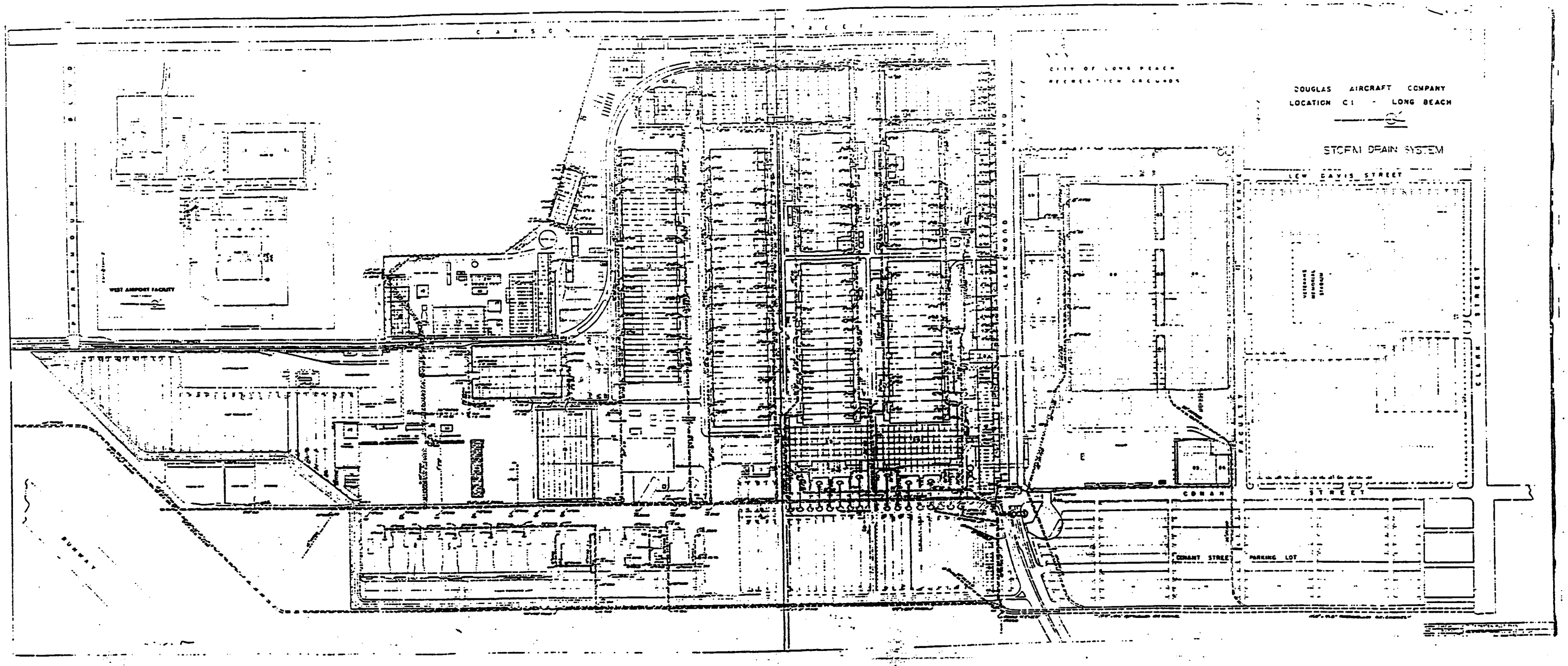
Bone Yard. The Bone Yard is located southwest of the C-6 facility, next to the C-6 salvage yard. Old/obsolete equipment are stored in the open in the Bone Yard. There is one catchment basin in the Bone Yard which drains storm waters from the Bone Yard into a residential storm drain system located to the west of the Bone Yard.

2.2.4 Facility Stormwater Drainage System

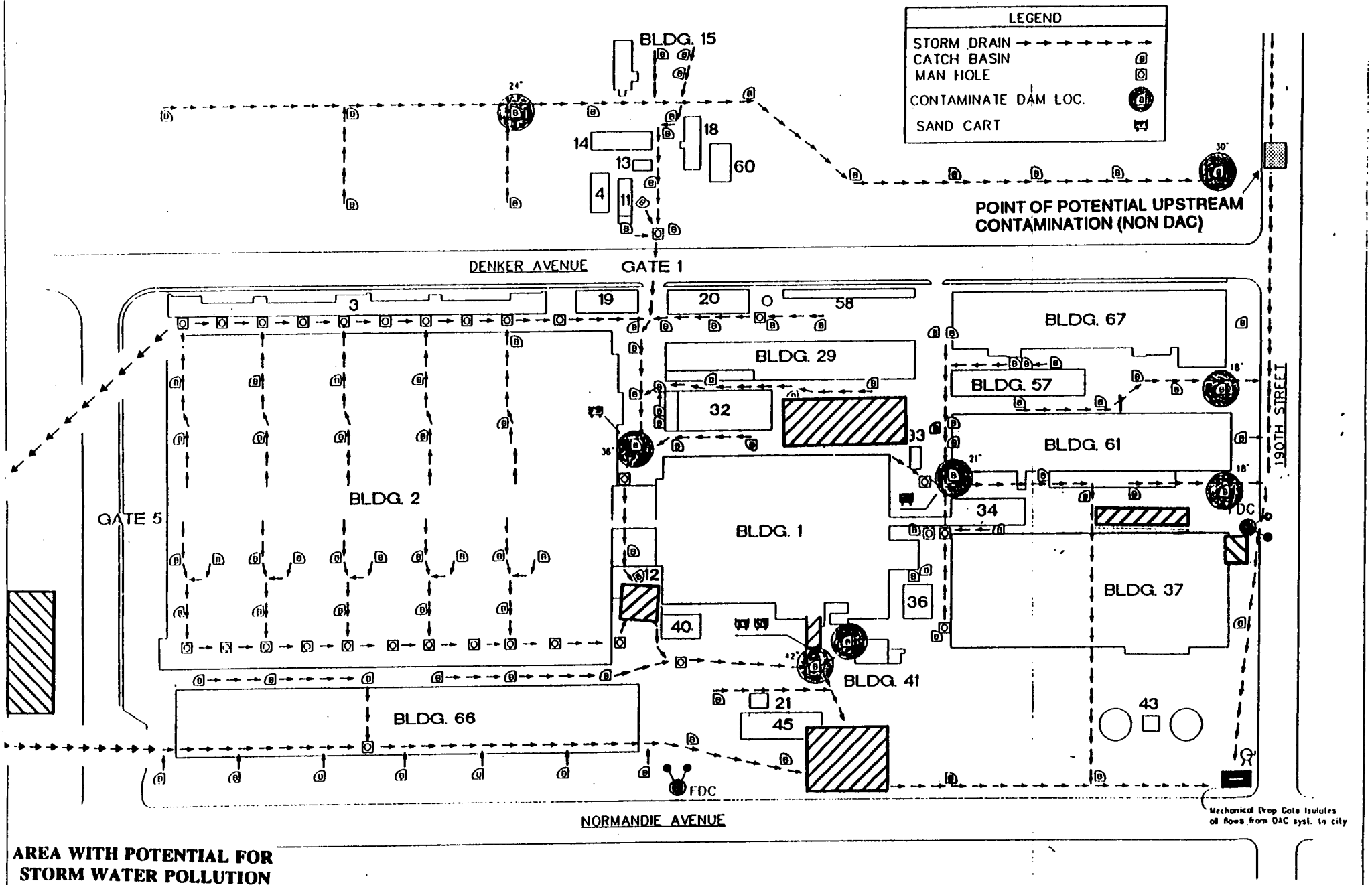
The C-1 facility storm drain system consists of catchment basins, manholes and storm sewer pipes located throughout the facility. There are six discharge points from the C-1 facility all of which drain into an open channel located to the southeast of the facility, which discharges to the street storm sewers. There are no connections between the storm sewers and the sanitary sewers on the C-1 facility. The location of the storm drains, manholes, catchment basins, and inverts associated with each manhole and catchment basin, and the drainage areas associated with each discharge point are presented in Figure 3a. Sheet flows from the C-1 facility to the adjacent facilities is prevented by the use of curbs and graded surfaces. The open channel which connects the C-1 storm water drainage system to the city storm drains is fitted with two inflated isolation booms. These booms are to be utilized to prevent the storm water from the C-1 facility from discharging into the city storm sewers in the event of an unapproved discharge into the C-1 facility storm water drainage system. Discharges into the storm drains at the C-1 facility include storm waters, some sheet flows from Long Beach Airport to the south, sheet flows from the Lakewood Golf Course to the northwest which might contain fertilizer and pesticide residues, and cooling tower and boiler blowdown as approved by the NPDES permit no. CA0001406.

The C-6 facility storm drain system consists of catchment basins, manholes and storm sewer pipes located throughout the facility. There are two discharge points from the C-6 facility to the street storm sewers. There are no connections between the storm sewers and the sanitary sewers on the C-6 facility. The location of the storm drains, manholes, catchment basins, and inverts associated with each manhole and catchment basin, and the drainage areas associated with each discharge point are presented in Figure 3b. Sheet flows from the C-6 facility to the adjacent facilities is prevented by the use of curbs and graded surfaces. Sand carts are utilized to prevent the storm water from the C-6 facility from discharging into the city storm sewers in the event of an unapproved discharge into the C-6 facility storm water drainage system. Discharges into the storm drains at the C-6 facility include storm waters, and cooling tower and boiler blowdown as approved by the NPDES permit no. CA0001414. A storm sewer from the International Light Metals facility located to the west of the C-6 facility runs through the north end of the C-6 facility and connects to one of the two storm drain discharge points from the C-6 facility (see Figure 3b). A catchment basin in the "Bone Yard" located to the southwest of the C-6 facility drains into a residential storm drain system located to the west of the "Bone Yard".

The West Airport facility storm drain system consists of catchment basins, manholes and storm sewer pipes located throughout the facility. There are eight discharge points from the West Airport facility to the street storm sewers. There are no connections between the storm sewers and the sanitary sewers on the West Airport facility. The location of the storm drains, manholes, catchment basins, and inverts associated with each manhole and catchment basin, and the drainage areas associated with each discharge point are presented in Figure 3c. Sheet flows from the West Airport facility to the adjacent facilities is prevented by the use of curbs and graded surfaces. Dams are utilized to prevent the storm water from the West Airport facility from discharging into the city storm sewers in the event of an unapproved discharge into the West Airport facility storm water drainage system. Discharges into the storm drains at the West Airport facility include storm waters, some sheet flows from Long Beach Airport, and cooling tower and radiator cooling water as approved by the NPDES permit no. CA0001406.



STORMWATER DRAINAGE MAP - C-1 FACILITY
FIGURE 3a



STORMWATER DRAINAGE MAP - C-6 FACILITY
FIGURE 3b

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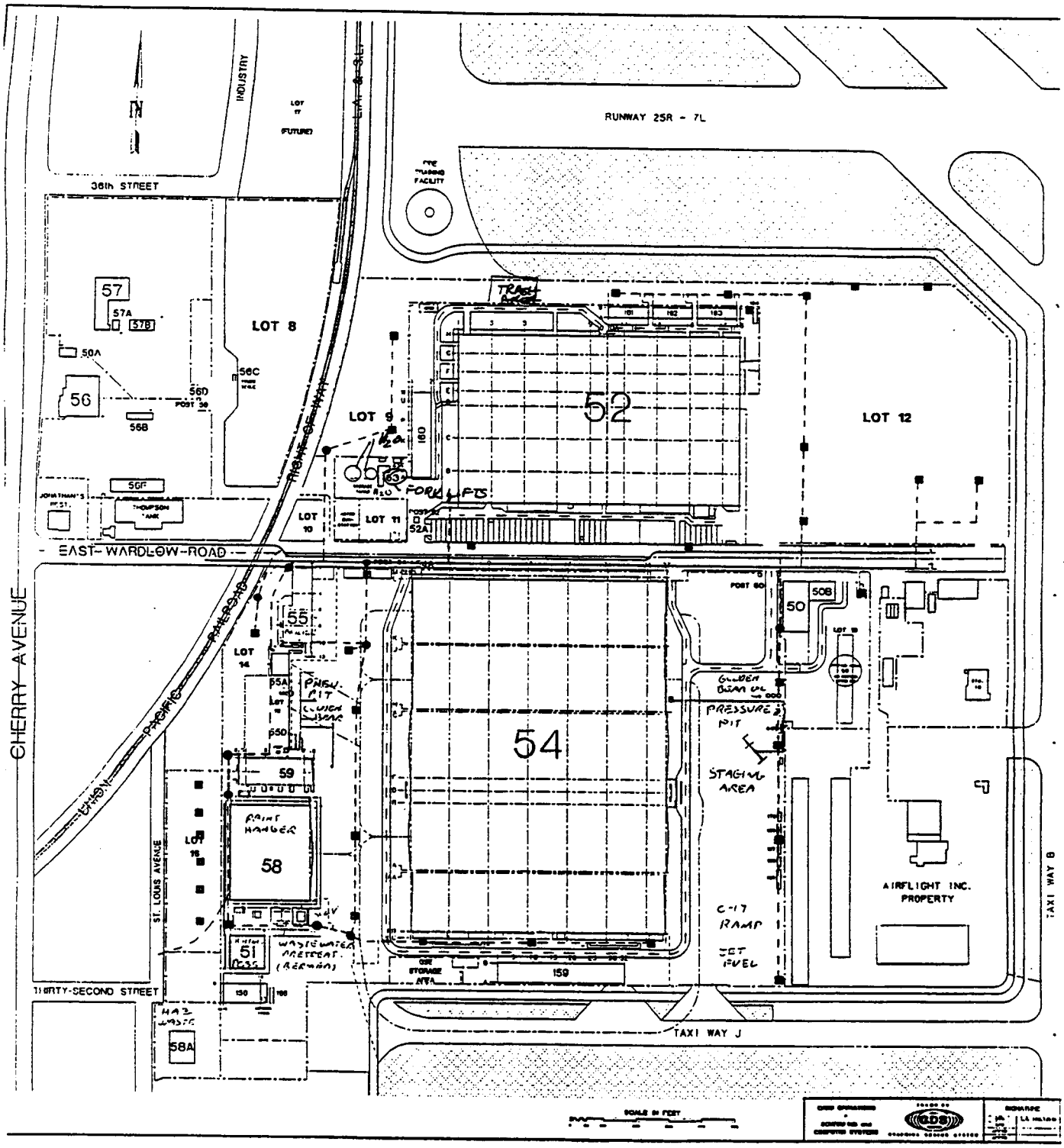

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LEGEND:

- ■ CATCH BASIN
- ● MANHOLE

STORMWATER DRAINAGE MAP - WEST AIRPORT FACILITY
FIGURE 3c

2.3 MATERIAL HANDLING AT DAC FACILITIES C-1, C-6 AND West Airport

2.3.1 Hazardous Materials Inventory

As a user of hazardous materials and a generator of hazardous waste DAC is subject to the many regulations requiring hazardous materials inventory and reporting. To this end, DAC has developed instructions for the development and maintenance of a chemical inventory for the C-1, C-6 and West Airport facilities. The DAC hazardous materials inventory includes both hard copy and computer database files. Since the inception of this program, the inventory has been updated on an annual basis. Appendix F contains a copy of the hazardous materials inventory instructions and an example copy of a page of the inventory print out. Yearly hazardous materials inventories can be found in the DAC Hazardous Materials Inventory binders.

2.3.2 Material Handling and Management Practices

Paint and Chemical Storage. No wastes are generated or normally stored in Building 10 at the C-1 facility. However, off-spec materials and materials which are no longer in use at the C-1 facility are managed and disposed in accordance with the guidelines outlined in Douglas Aircraft Company Procedure 105 (Procedure 105) "Hazardous Waste Management". Procedure 105 provides guidelines in accordance with prevailing government laws and regulations for collecting and disposing of hazardous waste materials generated at DAC (See Appendix G).

Acid and caustic are stored in bermed and isolated sections of Building 10. Any spills in either the acid storage area or the caustic storage area drains into separate waste acid and caustic underground storage tanks (USTs) located just outside the southeast end of Building 10. These waste acid and caustic USTs are single walled and have a volume of 500 gallons each. These USTs are scheduled to be replaced with double walled, fiberglass USTs with leak detection systems by early 1993. When these USTs are full, an outside contractor pumps out the acid or caustic using manholes located above the tanks and disposes or recycles the waste acid and caustic in accordance with DOT, Cal-EPA and EPA regulations. Any spills that might occur during the transfer of waste acid or caustic from the USTs to the transport trucks are managed in accordance with the guidelines set in the Procedure 105. Any spills that might occur outside of the acid and caustic storage area but inside Building 10 is also managed in accordance with the guidelines outlined in the Spill Prevention Control and Countermeasure Plan (SPCC) Plan.

Six single walled steel USTs are located to the east of Building 10. Each of these USTs has a volume of 5000 gallons. Methylene Chloride/Isopropanol is stored in one of the six USTs and 1,1,1-TCA is stored in another UST. The remaining four USTs are

currently empty and unused. These USTs are scheduled to be removed by early 1993 and replaced with secured, above ground tanks. The perimeter of the above ground tank storage area will be bermed to contain any spills/leaks that might occur. The above ground storage tank area will also be permanently covered with a canopy to prevent any storm water runons or runoffs from the above ground storage tank area during a storm event.

Located to the south of the USTs is a pile of empty/open drums stored near a catchment basin. These empty drums might constitute a potential for storm water pollution if the drums are dirty and runoff from these drums flow into the catchment basin.

The paint storage building, Building 36, at the C-6 facility is a covered building rated to store flammable materials. All paints received are stored inside. While no wastes are generated from this building, any inadvertent waste generated would be managed in accordance with Procedure 105 "Hazardous Waste Management". There is an area on the west side of Building 36 for the direct dispensing of 1,1,1-Trichloroethane.

The chemical storage building, Building 40 at the C-6 facility is also covered and all received chemicals are stored inside. Like Building 36, no wastes are generated from this building.

The chlorinated solvent and oil storage area located between buildings 33 and 29 at the C-6 facility is bermed but not covered. There is a sump which has a connection to an outlet drain which empties onto the concrete. This water would either evaporate or flow into a storm drain. The Environmental Department uses professional judgement in deciding whether to open the valve and discharge collected rain water, or to pump out the water and dispose of the collected rain water as hazardous waste.

Additionally, oil and coolant is stored east of Building 1 and west of Building 37 at the C-6 facility. The oil and coolant is stored in above ground tanks which are either bermed or lined. These storage areas are not covered.

Cyanide Storage (C-6 Facility). Building 33, Cyanide Storage, is an enclosed brick building. Cyanide is transferred from the storage building to Building 2 where it is used. There is a potential for spillage during a transfer procedure. Should a release occur, the employee at the scene would notify the Fire Department in accordance with Procedure 105 "Hazardous Waste Management." There are no storm drain catchment basins near the storage building.

Coolant Storage. Each coolant storage tank is placed in a trough which is designed to hold at least the volume of the storage tank. The spent coolant is either manifested and transported off-site by an outside contractor or recycled onsite. Any spills that might occur in a Coolant Storage Area are managed in accordance with the guidelines outlined in the SPCC Plan and the DAC emergency response program.

A coolant storage drum located outside Building 52 at the West Airport facility poses a potential for storm water pollution. At this time, there is no drip pan to contain drips from the tap on the drum consequently causing contamination of the paved surface below the tap. Any release from the drum goes to a storm drain located just down gradient of the drum.

Soiled Rag Bins/Drums. Soiled rags bins/drums are located throughout the C-1, C-6 and West Airport facilities. These bins/drums are red in color and contain a lid to prevent accumulation of storm water in the bins/drums. At the C-1 and C-6 facilities, when a bin is full, the soiled rags are removed and transported to the hazardous waste storage area where the soiled rags are consolidated and stored in bags. An outside contractor periodically transports these bags to a rag laundering and recycling facility. At the West Airport facility the soiled rags are transported to an approved incineration facility for incineration.

Tank Farm. The C-1 facility operates two tank farms adjacent to the West Ramp aircraft testing location. One is referred to as the north tank farm, the other as the south tank farm.

While none of the USTs and piping are currently double-walled, there is a plan to phase in double-walled tanks and pipes, as well as leak detection systems. All transfer appurtenances are located above ground and are bermed but not covered.

Aircraft Fuel Tank Test Area. The aircraft fuel tank test area located north of Buildings 10 and 19 at the C-1 facility uses double walled above ground fiberglass piping with leak detection systems to transfer the fuel from the storage tanks to the aircraft fuel tanks to be tested. The entire Fuel Test Area is bermed to contain any spills that might occur in the Fuel Test Area. Any spills that might occur are managed in accordance with the guidelines outlined in the SPCC Plan. In the event of a major spill in the Fuel Test Area, the waste jet fuel is stored in a 25000-gallon single walled UST to the west of Building 25. The integrity of the waste jet fuel storage UST is monitored by the use of vadose zone soil and groundwater monitoring wells. When the tank is full, an outside contractor pumps out the waste jet fuel using manholes located above the tank and disposes or recycles the waste jet fuel in accordance with DOT, Cal-EPA and EPA regulations. Any spills that might occur during the transfer of waste jet fuel from the USTs to the transport trucks are managed in accordance with the guidelines outlined in the SPCC Plan.

The Golden Bear Oil used for most of the fuel tests at the West Airport facility, is stored

in three above ground double-walled tanks with no berm, with a monitoring system connected to the Fire Department, and transported in a mobile tank truck. There are plans to install an oil-water separator at the end of the storm pipe at the West Airport Flight Ramp where the drain empties into the street storm sewer.

Fuel Function Testing. Fuel function testing is conducted at the West Ramp area at the C-1 facility and, at the Flight Ramp and Pneumatic Pit areas at the West Airport facility. Due to the possibility of a spill occurring during the fuel testing process, the hazardous waste contractor dams the storm drains, in the test area with an impervious liner, sand, and absorbent material.

The fuel dumping station located at positions 30 and 31 at the C-1 West Ramp, is a closed-loop system where connections from the UST used to contain the dumped fuel, are made directly to the aircraft. Accidental releases of fuel during the fuel dumping process would be handled in accordance with emergency response procedures. One of the Fire Departments is located just east of positions 30 and 31 for such needs.

Compressor and Boiler Houses. The blowdown from steam boilers at the C-1 facility is discharged into the storm drains at Lakewood and Conant Avenue per NPDES Permit No. CA0001406 (See Appendix H).

The chemicals used to control the formation of scales, corrosion and biological growth are stored indoors in accordance with the guidelines outlined in DPS 4.50-1 "Storing and Handling Finishing Materials and Related Items" and do not constitute a potential for storm water pollution.

The boiler blowdown from the C-6 facility Building 41 (Boiler House) is discharged to the sanitary sewer system in accordance with Los Angeles County Sanitation Districts Industrial Waste Permit #800R-2 (See Appendix H). North of Building 41 at the C-6 facility are two USTs containing Diesel Fuel (Fuel Oil #2). Both tanks are equipped with leak detection systems and are scheduled to be removed by 1997.

Cooling Towers. The roof mounted cooling towers at the C-1, C-6 and West Airport facilities are primarily of the single pass, non-contact type. Cooling waters from most of the single pass, non-contact cooling towers are discharged directly into the storm drains at Lakewood and Conant Avenue in accordance with NPDES Permit No. CA0001406 (See Appendix H). Cooling waters from the C-6 facility are discharged directly to the storm drain system in accordance with NPDES Permit No. CA0001414 (see Appendix H). There are also many recirculating cooling towers located throughout the C-1 facility. The bleed-off from these cooling towers are discharged into the storm drains at Wardlow and Cherry Avenue and the storm drains at Lakewood and Conant Avenue in accordance with NPDES Permit No. CA0001406. The chemicals used to control the formation of scales, corrosion and biological growth are stored indoors in accordance with the guidelines outlined in DPS 4.50-1 "Storing and Handling Finishing Materials and Related Items" and do not constitute a potential source of storm water pollution.

Metal Chip Compactor. The cutting fluids generated as a result of the metal chip compactor consolidation operations at the C-1 facility, drain through the bottom of the compactor into an open trench. The cutting fluid in the open trench is periodically pumped into a tank for eventual off-site disposal and the consolidated metal chips are hauled to an off-site recycling facility by an outside contractor.

A blind sump runs along the area east of the chip compactor. This sump is often filled with cutting fluids. The DAC hazardous waste manager ensures that the sump contents are periodically pumped out and disposed of as hazardous waste. This area presents a potential source of contamination to the storm waters.

The C-6 salvage operations are located at Buildings 32, 59 and 59A. The Building 59 salvage yard is set up with a metal chip and coolant collection system. The system is located in the southeast corner of the salvage yard in an asphalt bermed area. The bin is used to store scrap metal chips generated during machining operations. Residual oil from the chips drains into the concrete floor which is sloped toward a blind sump. The oil is then pumped from the sump into an above ground tank on the other side of the salvage yard fence. This area poses a potential for storm water contamination because the canal which leads directly to the storm drain system is located downgradient of the sump. During rain storms, the hazardous waste contractor pumps the oil and water directly from the sump and transports the waste for recycling or disposal.

Aircraft Wash Area. All chemicals used in aircraft washing operations are stored indoors. The wastewaters generated as a result of these operations are discharged into the sanitary sewers. However, during a storm event, a diverter valve is used to discharge the storm water to the storm drains after the storm water flows through a three-stage clarifier.

Vehicle Wash Area. Currently the wastewater generated as a result of operations conducted at the Vehicle Wash Area at the West Airport facility is discharged directly into the storm drains. An abandoned Vehicle Wash Area is located on Lot 15 southeast of Building 50 on the West Airport facility. This abandoned Vehicle Wash Area has a permitted three stage clarifier which is currently not in use. Oil tankers stored on this abandoned Vehicle Wash Area at the West Airport facility might constitute a potential for storm water pollution if the tanks are not kept clean prior to a storm event.

The C-6 facility vehicle wash area is located between C-6 Buildings 66 and 45. This area uses high pressure water and detergents to clean plant vehicles. The area is bermed with a sump that collects the waste water. The waste water is pumped from the sump through an above ground pipe across the pavement to an Ultrafiltration System, located west of the Building 45 Hazardous Waste Yard. The Ultrafiltration unit de-oils the water and then send the water to a three-stage clarifier and ultimately to the sanitary sewer system.

Maintenance. No process wastewaters are generated as a result of the maintenance operations conducted at the facilities. All chemicals used for maintenance activities are stored indoors. Wastes generated from these operations including spent cutting oils, lubricants, degreasers, solvents and metal chips and wood shavings are managed and disposed off in accordance with the guidelines outlined in Procedure 105 "Hazardous Waste Management".

Garage (Vehicle Maintenance). At vehicle maintenance yard, the employees empty waste oils and fluids into drums for temporary storage. The hazardous waste contractor picks up the waste oil, typically every few days. The waste is consolidated or readied for disposal at the hazardous waste storage yard. The temporary storage drums are stored within the building and not outside.

The only solvent used at the garage is "Safety Kleen" which is recycled. No other chemicals are received into the garage for storage or use.

Soiled rags are stored in specified bins/drums labeled for soiled rags. The soiled rags are collected by the hazardous waste contractor periodically, typically every few days. The soiled rags are taken to the hazardous waste storage yard where they are consolidated and sent off-site for laundering and recycling or incineration. Additionally, soiled rag storage bins/drums, which are red in color and have lids, are located throughout the facilities. These bins/drums are stored both inside and outside of the buildings, however, during a rain storm they can be taken inside for storage.

The C-6 facility fueling station has two underground storage tanks (UST) which contain unleaded gasoline. Both USTs have leak detection systems and one tank is double-walled. The other tank is currently being monitored. Diesel fuel is stored at the boiler house and near the emergency generator.

No heavy cleaning, with high pressure or detergents, is conducted at the garage at the C-1 and C-6 facilities. Rinsewater is directed toward a three-stage clarifier which empties into the sanitary sewer system.

Used batteries are stored inside the garage and picked up by an outside contractor monthly for recycling and disposal.

Testing Support. There are large capacitors stored in West Airport Building 51 (testing support operations) which might constitute a potential for storm water pollution in the event of a catastrophic failure. No process wastewaters are generated as a result of the testing operations conducted. Wastes generated during testing operations are managed and disposed off in accordance with the guidelines outlined in Procedure 105 "Hazardous Waste Management".

Fabrication Support. No process wastewaters are generated as a result of the fabrication support operations conducted at the C-1 facility. Wastes generated in these buildings including spent solvents and waste plastic materials are managed and disposed off in accordance with the guidelines outlined in Procedure 105 "Hazardous Waste Management".

Laboratory Support. No process wastewaters are generated as a result of the laboratory support operations conducted at the C-1 facility. Wastes generated in these buildings including spent acids, bases, and infectious wastes are managed and disposed off in accordance with the guidelines outlined in Procedure 105 "Hazardous Waste Management".

Aircraft Assembly. All operations in the aircraft assembly buildings are conducted indoors. No process wastewaters are generated as a result of the operations conducted in the aircraft assembly buildings. Wastes generated in these buildings including spent coolant, cutting oils, lubricants and solvents are managed and disposed off in accordance with the guidelines outlined in Procedure 105 "Hazardous Waste Management".

Waste generated in Buildings 3, 4, 5, and 6 at the C-1 facility including spent acids, strippers, solvents, degreasers, coolants, soiled rags and waste plastics are managed and disposed off in accordance with the guidelines outlined in Procedure 105 "Hazardous Waste Management". Rinse water generated as a result of conducting the above operations are piped to the DMJM wastewater pretreatment system at the C-1 facility and is discharged into the sanitary sewers after pretreatment.

Painting. Wastes generated in Buildings 85, 86 and 87 at the C-1 facility and Buildings 58, 59 at the West Airport facility (due to painting operations) including spent strippers, solvents, waste paint, and alodine are managed and disposed off in accordance with the guidelines outlined in Procedure 105 "Hazardous Waste Management". Rinse waters generated as a result of conducting the above operations are piped to the Memtek wastewater pretreatment system at the C-1 facility and the ACS wastewater pretreatment system at the West Airport facility and is discharged into the sanitary sewers after pretreatment.

Paint waste drums and virgin paint, thinners and solvents are stored outdoor on pallets between Buildings 58 and 59 at the West Airport facility. Virgin oil drums are also stored south of Building 58 in proximity of a storm drain and with no provisions to prevent pollution of storm water.

While most aircraft painting is conducted indoors, some touch up and painting of difficult sections of aircraft assembled at the C-1 and West Airport facilities are done outdoors. In conjunction with the outdoor painting operation some degreasing, cleaning and stripping operations are also conducted outdoors. Wastes generated as a result of these operations are containerized and collected by the hazardous waste contractor and properly disposed of. Accidental releases of hazardous materials involved in painting operations

would be treated in accordance with the emergency response plans. Most of the outdoor painting operations take place at the flight ramp and delivery areas at both the C-1 and West Airport facilities.

All C-6 painting operations are conducted indoors. The paint areas have wet and dry scrubbers which filter the air of paint emissions. All of the wastewater from the wet scrubbers are pumped out by the hazardous waste contractor and disposed off as hazardous waste. The sumps from the scrubber systems are sealed from the storm and municipal sewer systems.

Degreasing. All degreasing operations are conducted indoors. Spent solvent is pumped from the tank into drums for disposal by the hazardous waste contractor. While there is opportunity for spillage during product transfer operations, there is minimal risk of released solvent entering the storm drain system, because the operations are conducted indoors. In the event of a release, the Fire Department would be called to stop the release and clean up the solvent.

Metal Bonding and Fabrication. Waste generated due to the anodizing process at the C-6 facility include spent chromic acid and process rinse waters. The waste acid is pumped from the tank into 3,000 gallon tank trucks for disposal at a hazardous waste facility. The wastewater is directed to a sump where it is pumped into a wastewater pretreatment plant equipped with a chrome reduction unit. The treated wastewater is discharged into the sanitary sewer. Other wastes generated in the facility include spent strippers, solvents, coolants, soiled rags and metal. All chemicals used in this building are stored and used indoors. There is no outside storage of these chemicals or wastes. Wastes are periodically collected by the hazardous waste contractor and disposed of in accordance with Procedure 105 "Hazardous Waste Management."

Plastics Processing. All chemical stocks are received and stored inside the plastics processing building at the C-6 facility. The plastic polishing compound waste comprises of aluminum oxide and cerium oxide which is discharged to an above ground clarifier and then to the sanitary sewer. Wet scrubber are used to control air pollution while conducting spray painting operation. The wastewaters from the scrubbers are pumped directly from the scrubber to the wastewater pretreatment system. The scrubber system is sealed off from the storm and sanitary sewer systems.

Machine Shop. N/C machine spent oil is collected in a sump below each machine at the C-6 facility. Small portable tanks called sump suckers are used to transfer cooling oils from the machines to the above ground storage tanks outside. A coolant spill large enough to overfill or bypass the sump on a machine could flow out of the building into the storm drain system. The coolant that is stored outside is recycled. The tanks are lined with secondary containment.

Deburring operation are conducted at the east end of Building 37 at the C-6 facility. This operation uses green ceramic chips with water in a vibrating tank to smooth the edges of the newly machined metal parts. The wastewaters generated due to deburring operations are contaminated with residual oil and particulate matter. These wastewaters drain into a clarifier and then into the sanitary sewer.

Chemical Milling. Virgin caustic and waste mill solutions at the C-6 facility are stored in aboveground tanks within a bermed enclosure. These bermed enclosures are not covered. The waste mill solution (caustic) is pumped from the storage tanks and disposed of by the hazardous waste contractor, as hazardous waste. The rinse water from the chemical milling process is discharged into a three-stage clarifier and subsequently discharged as industrial wastewater to the sanitary sewer system. There is no requirement for pH adjustment by the Los Angeles County Sanitation District.

There is a safety shower located outside of the bermed caustic storage area at Building 12 at C-6. This poses a potential concern for storm drain contamination as there is a storm drain located downgradient from the shower position and would drain water discharged from the shower. If the safety shower is used to decontaminate an employee exposed to corrosive material, potentially corrosive (or otherwise contaminated) water would discharge to the storm drain.

Maskant Spraying. The maskant used in the spraying operations conducted at Building 1 at the C-6 facility is stored in three above ground tanks outside of the building (on the east side). The material is pumped from the tanks to the process area. These storage tank area is not bermed, nor are the tanks protected from vehicular accidents. Such an accident could result in a release that could enter a nearby storm drain.

Cyanide and Anodizing Process. The wet process area in Building 2 of the C-6 facility has a subfloor which acts as a secondary containment system in the event of a release. The subfloor is sealed from the storm and sanitary sewer systems. All rinses from cyanide processes are static rinses. They are pumped into containers and disposed off as hazardous waste. The spent rinse waters from the anodizing processes are pumped to the wastewater pretreatment plant which is equipped with a chromium reduction unit. The treated wastewater is discharged from the chromium reduction unit to a three-stage clarifier and then into the sanitary sewer.

Wastewater Pretreatment Operations. The DMJM wastewater pretreatment system located between Buildings 3 and 4 at the C-1 facility is used to treat and remove chromium present in rinse waters generated by painting, stripping, alodining, anodizing, plating and metal finishing operations conducted at Buildings 3, 4, 5 and 6 at the C-1 facility. The chromium is reduced from hexavalent form to its trivalent form and precipitated. The treated effluent from the DMJM wastewater system is then discharged

into the sanitary sewers in accordance with Los Angeles County Sanitation Districts (LACSD) Permit #804. The chemicals used in the treatment process include calcium chloride, hydrochloric acid, sodium bisulfite, sodium hydroxide, Polymer 4 for the reduction, flocculation and precipitation of chromium. The chromium hydroxide sludge generated as a result of chromium precipitation is stored in closed, labeled drums which are disposed of by an outside contractor. The chemicals used in the treatment process are stored in enclosed double walled steel or plastic tanks. The entire treatment system including the chemical storage tanks are stored inside a bermed area with the floor sloped to a blind sump.

The ACS wastewater pretreatment system located west of Building 51 at the West Airport facility is used to treat and remove chromium and cyanide present in rinse waters generated by painting, stripping, alodining and anodizing operations conducted at Buildings 58 and 59 at the West Airport facility. The chromium is reduced from its hexavalent form to its trivalent form and precipitated, while cyanide is oxidized to nitrogen gas. The treated effluent from the ACS wastewater system is then discharged into the sanitary sewers in accordance with LACSD Industrial Waste Permit #11482. The chemicals used in the treatment process include sodium hypochlorite for the oxidation of cyanide, and calcium chloride, hydrochloric acid, sodium bisulfite, sodium hydroxide, Polymer 4 for the reduction, flocculation and precipitation of chromium. The chromium hydroxide sludge generated as a result of chromium precipitation is stored in closed, labeled drums which are disposed of by an outside contractor. The chemicals used in the treatment process are stored in enclosed double walled steel or plastic tanks. The entire treatment system including the chemical storage tanks are stored inside a bermed area with the floor sloped to a blind sump.

The Memtek wastewater pretreatment system located between Buildings 87 and 85 at the C-1 facility is used to treat and remove chromium present in rinse waters generated by painting, stripping, and alodining operations conducted at Buildings 85 and 87 at the C-1 facility. The chromium is reduced from its hexavalent form to its trivalent form and precipitated. The treated effluent from the Memtek system is then discharged into the sanitary sewers in accordance with LACSD Industrial Waste Permit #806R-1. The chemicals used in the treatment process include calcium chloride, hydrochloric acid, sodium bisulfite, sodium hydroxide, Polymer 4 for the reduction, flocculation and precipitation of chromium. The chromium hydroxide sludge generated as a result of chromium precipitation is stored in closed, labeled polymer drums which are disposed of by an outside contractor. The pretreatment system area is bermed with the floor sloped to a blind sump. Two effluent storage tanks located outside the bermed area are placed on a synthetic liner and contained using inflatable rubber berms. The chemicals used in the pretreatment process are also stored outside the treatment area in closed double walled steel or plastic tanks.

A DMJM wastewater pretreatment system is located between Buildings 1 and 45 at the C-6 facility. It is used to treat and remove chromium and cyanide present in rinse waters generated from painting, stripping, alodining and anodizing operations conducted in Buildings 1, 2, and 67. The chromium is reduced from its hexavalent form to its trivalent form and precipitated, while cyanide is oxidized to nitrogen gas. The treated effluent is then discharged into the sanitary sewer in accordance with LACSD Industrial Waste Permit #800R-2. The chemicals used in the treatment process include sulfur dioxide, sodium bisulfite, sodium hydroxide, Polymer 4 for the reduction, flocculation and precipitation of chromium. The chromium hydroxide sludge generated as a result of chromium precipitation is stored in closed, labeled drums which are disposed of by the hazardous waste contractor. The chemicals used in the treatment system including the chemical storage tanks are stored inside a bermed area with the floor sloped to a blind sump.

Fire Stations. The fire stations at the C-1 (Building 44) and the West Airport (Building 53) facilities houses the emergency stationary fire pump to be used in the event of the occurrence of a fire. Radiator cooling water from the fire pump is discharged into storm drains in accordance with NPDES Permit #CA001414. Three diesel tanks for storage of diesel for the fire pumps at the West Airport facility are located outdoors in a bermed area.

Hazardous Waste Management. An outside contractor is used to conduct the daily activities of operating the hazardous waste yards at the C-6, C-1 and West Airport facilities under the management of DAC personnel. Contractor personnel routinely collect hazardous waste from designated generating points throughout the facilities. Wastes are segregated, consolidated and stored at Building 45 at the C-6 facility, Building 47 at the C-1 facility, and Building 58A at the West Airport facility, pending ultimate disposal. The facility operates under generator status ensuring that wastes are properly disposed of within 90 days of generation. The hazardous waste storage yards are lined with an impervious coating and bermed where chemical transferring and storage takes place. The segregated waste storage areas are covered. While the fire department and environmental departments are responsible for spill and emergency response, the hazardous waste contractor is also able to respond to spills within the hazardous waste storage yard. The SPS Procedure 105 "Hazardous Waste Management" governs hazardous waste handling and disposal procedures.

The C-1 facility generates 12 steady waste streams and the hazardous waste manager tracks every drum used at the C-1 site for handling of wastes. An identification number is stenciled on each drum, the contents of the drum are recorded on the Drum Tracker Form, along with information pertaining to the location the waste was generated, the location the waste was shipped to and the necessary manifest number and dates the drum

was issued, used, and returned. A copy of the Drum Tracker Form is presented in Appendix I. The C-1 hazardous waste manager also uses a form to track wastes shipped off-site for treatment or disposal. This form tracks the hazardous waste manifest number, date transported, transport and destination information, and costs. A copy of this form appears in Appendix J. The C-6 hazardous waste storage yard has a small lined and bermed receiving area where employees can bring hazardous wastes before final storage inside the yard.

There is one area of Building 45 at the C-6 facility which may pose a concern to the storm drain system. This area is a paved section at the northeast corner of the hazardous waste yard used primarily for storing empty drums. This area slopes downward toward a storm drain located just outside of the fence. There are no other diversions in place to prevent material from flowing into the drain. The contractor does have spill response materials on-site and will take action to mitigate spills in the area, during business hours.

2.3.3 Potential Pollution to Stormwater

In an effort to determine the potential for contamination to the stormwater system, a review of material inventory lists, storage container types, material handling practices, location of material handling operations, and stormwater flow patterns for each operation at the three facilities was performed. Information detailing the potential areas of concern, potential problem, and type of potential pollutant for each operation at the three facilities are summarized in Tables 1a (C-1), 1b (C-6) and 1c (West Airport) and shown in Figures 2a, 2c and 3b.

2.3.4 Historical Spills or Leaks to Stormwater System

To date, no record indicates that spills or leaks have occurred at the C-6 and the West Airport facilities which resulted in a release to the storm drain system.

2.4 MANAGEMENT CONTROL

2.4.1 General Best Management Practices (BMP's)

By utilizing proper management techniques and practices it is possible to improve control of the identified potential sources of pollutants and reduce the number of spills/releases to the stormwater system.

A general BMP utilized for all processes is the DAC Procedure (DAC-105) "Hazardous Waste Management," and the program implementing the procedure. Generators of hazardous waste accumulate small quantities of waste at the generating location. The hazardous waste contractor routinely collects hazardous waste from the generating location, brings the waste to the various hazardous waste storage yards, and prepares the

TABLE 1a

POTENTIAL POLLUTION TO STORM WATER DUE TO OPERATIONS CONDUCTED AT THE C-1 FACILITY

Location	Potential Area of Concern	Potential Problem	Potential Pollutants
East of Building 10	Empty drums stored outdoors	The empty drums are stored in an area with no provision to prevent runons or runoffs	Hazardous material residues on drum heads
West of Building 27	Horizontal drum rack with open lubricating oil drums located outdoors	The drums are provided with individual drip pans but have no provisions to contain/prevent any runons or runoffs	Lubricating oil
Metal Chip Compactor Area	Open trenches and a blind sump filled with coolant and located outdoors	In the event of storm event, overflow from the open trench & blind sump will end up in the storm drains	Cutting oils

TABLE 1a (Continued)

POTENTIAL POLLUTION TO STORM WATER DUE TO OPERATIONS CONDUCTED AT THE C-1 FACILITY

Location	Potential Area of Concern	Potential Problem	Potential Pollutants
Wastewater Pretreatment Area to the East of Building 4	Storm drain located just south of the wastewater pretreatment area	Any spills in the wastewater pretreatment system will discharge into the storm drains down grade	Wastewater, chemicals used in the wastewater pretreatment system
Aircraft Wash Area	Storm drains in Aircraft Wash Area	Discharge of detergent and alodine stripper residues on the concrete into the storm drains	Detergent, alodine stripper
Fuel Test Area and Fuel Function Test Area	Storm drains in these areas	Discharge of jet fuel residues on the concrete into the storm drains	Jet fuel

TABLE 1b

POTENTIAL POLLUTION TO STORM WATER DUE TO OPERATIONS CONDUCTED AT THE C-6 FACILITY

Location	Potential Area of Concern	Potential Problem	Potential Pollutants
Building 45 Hazardous Waste Yard	Storm drain located downgradient of the northeast corner of the hazardous waste storage yard	A spill in the unbermed area of the hazardous waste yard could flow into the storm drain located just outside of the fence	Hazardous wastes handled at the DAC C-6 facility
Building 59 Salvage Yard	Scrap metal chip bin and sump area	Coolant and oil drips out from the bottom of the scrap metal chip bin. The liquid flows to a sump and is pumped into a storage tank. This area is located adjacent to and upgradient from the storm drain canal. Heavy rain or mismanaged coolant	Coolant and lubricating oil

TABLE 1b (Continued)

POTENTIAL POLLUTION TO STORM WATER DUE TO OPERATIONS CONDUCTED AT THE C-6 FACILITY

Location	Potential Area of Concern	Potential Problem	Potential Pollutants
		could cause contamination to the storm drain system	
Between Buildings 29 and 33, Chlorinated solvents and Oil Storage	Bermed area with drain to concrete	Build up of rain water due to open storage. Potential contamination of rain water could result in a release to the concrete outside the berm	1,1,1-Trichloroethane and oil
Machine Shop	Machinery near open door of building	Coolant or oil spill large enough to bypass equipment sump could flow outside of the building	Coolant and lubricating oil

TABLE 1b (Continued)

POTENTIAL POLLUTION TO STORM WATER DUE TO OPERATIONS CONDUCTED AT THE C-6 FACILITY

Location	Potential Area of Concern	Potential Problem	Potential Pollutants
Building 12	Safety shower area	Use of safety show on a contaminated person or piece of equipment would result in contaminated water entering the storm drain downgradient of the shower	Most likely corrosive materials
East Side of Building 1	Maskant storage	The maskant is stored in above ground tanks which are not protected by a guard post, nor do they have secondary containment	Perchlorethylene maskant

TABLE 1b

POTENTIAL POLLUTION TO STORM WATER DUE TO OPERATIONS CONDUCTED AT THE C-6 FACILITY

Location	Potential Area of Concern	Potential Problem	Potential Pollutants
Bone Yard	Catchment basin located in the middle of the Bone Yard	Drainage of rust and residues from equipment stored in the Bone Yard into the adjacent residential storm drain system	Rust, particulates, unknowns

TABLE 1c

POTENTIAL POLLUTION TO STORM WATER DUE TO OPERATIONS CONDUCTED AT THE WEST AIRPORT FACILITY

Location	Potential Area of Concern	Potential Problem	Potential Pollutants
Building 51	Capacitor Storage Area	No provision present to contain potential spillage from capacitors into the storm drainsCapacitor fluid	
West of Building 52	Polymer coolant storage drum	The coolant storage drum has no provisions to contain any spills/ leaks/drips or runoff/ runons to a storm drain located nearby downgradient	Coolant
Building 55	Open drum located inside Building 55 near a storm drain used to discharge boiler blowdown	There are no provisions to contain any spills that might occur during operations conducted with the drum	Oil

TABLE 1c (Continued)

POTENTIAL POLLUTION TO STORM WATER DUE TO OPERATIONS CONDUCTED AT THE WEST AIRPORT FACILITY

Location	Potential Area of Concern	Potential Problem	Potential Pollutants
	Open drums located outside, to the west of Building 55	There are no provisions to contain any spills/leaks or runon/runoff	Compressor oil
Between Buildings 58 & 59	Paint waste, virgin paint, solvents & thinner storage area	These drums are stored outdoor without any provisions to contain any spills/leaks or runons/runoff from this area	Paint waste, paint, solvents, thinners
Abandoned Vehicle Wash Area	Oil tanker storage area	No provisions to contain any runoff from these tanks which might contain fuel residuals	Jet fuel, petroleum

TABLE 1c (Continued)

POTENTIAL POLLUTION TO STORM WATER DUE TO OPERATIONS CONDUCTED AT THE WEST AIRPORT FACILITY

Location	Potential Area of Concern	Potential Problem	Potential Pollutants
The Golden Bear Oil Tank Farm	The Golden Bear Oil storage tanks	This tank farm is not bermed and does not have any provisions to contain spill/ leaks or runoff	Golden Bear Oil
Fuel Test Area	Storm drains in the fuel test area	Discharge of Golden Bear oil residues on the concrete into the storm drains	Golden Bear Oil

wastes for offsite treatment and disposal. This practice obviates the need for large quantities of wastes to be stored at the operating sites and minimizes the potential for a release of a hazardous material to the storm drain system. Another general BMP utilized by all processes are the Douglas Aircraft Company - Douglas Process Standards. These standards provide instruction for each process conducted, including hazardous materials handling, storage, and disposal.

A general list of management control practices consisting of non-structural control measures and structural control measures has been generated. A description of each of these best management practices (BMP's) follows:

NON STRUCTURAL CONTROL MEASURES

Employee Training (ET)

Employee training programs are used to inform personnel, at all levels of responsibility, to gain a complete understanding of the processes and materials with which they are working, the health and safety hazards, the practices for preventing spills, and the procedures for responding properly and rapidly to spills of toxic and hazardous materials. The important aspects of this control measure include the following:

- Training and retraining sessions held at frequent intervals to assure adequate understanding of training goals and objectives. New employees will be trained within one month of employment. Training for regular employees depends on site and could vary from monthly to semi-annually. Typical training sessions will be held in January and August, before and in the middle of the wet season.

- Making employees aware of proper procedures on material handling, equipment operation, visual inspection, preventative maintenance, and good housekeeping.

- Making employees aware of the concept of separation of process waste and stormwater.

- Transmission of knowledge of past releases and causes.

- Adequate training in release reporting procedures and spill cleanup measures.

- Adequate training of stormwater monitoring equipment operation.

Visual Inspection (VI)

Visual inspection consists of patrolling the industrial activities, observing operation, maintenance, and housekeeping practices to detect variances from procedures, releases or evidence of potential releases, or other conditions that could lead to an environmental incident. Periodic facility inspections are performed by trained personnel. Once a release or leakage is noticed, the employees will report the incident and notify the people responsible for hazardous material release response so that immediate countermeasures can be initiated.

Preventative Maintenance (PM)

Preventative maintenance involves examination of mechanical equipment and systems to uncover conditions that could cause equipment breakdowns, and correction of those conditions by adjustment, repair, or replacement of worn parts before the equipment or systems fail. This would include maintenance of the drainage system and stormwater monitoring equipment. A good preventative maintenance program would include the following elements:

- Identification of equipment and systems to which the program should apply by analysis for potential failures and release of hazardous substances;
- Periodic inspections and testing of such equipment and systems;
- Appropriate adjustment, repair, or replacement of parts; and
- Maintenance of complete records on deficiencies and corrective actions taken on the applicable equipment and systems.

Good Housekeeping (GH)

Good housekeeping is essentially the maintenance of a clean and orderly work environment. It is a good indication of well-trained personnel and best management practices being applied. A clean and orderly work area reduces the possibility of accidental spills caused by mishandling of equipment and should reduce safety hazards to personnel. Examples of good housekeeping include:

- Neat and orderly storage of chemicals in a proper manner and area.
- Prompt cleanup/removal of spillage.
- Regular garbage and rubbish pickup and disposal.

- Maintenance of floors by use of brooms.
- Provisions for storage of containers or drums.
- Prevention of accumulation of liquid and solid chemicals on the ground or floor of a building.

Preventive Practices (PP)

Preventive practices involve close control of plant operations and equipment to prevent spills or chemicals or fuels from their primary containment. These practices can be further divided into the following four measures:

Monitoring (PP1). Monitoring is the measuring of process parameters to determine operating conditions of a process or piece of equipment. Instrumentation is the method, measure, or equipment used for monitoring a particular process.

Nondestructive Testing (PP2). Nondestructive testing is the testing of a structure or vessel without it being altered, modified, or disassembled. Nondestructive testing involves the application of measuring methods to examine the structural integrity of tanks, pipelines, pumps, valves, and fittings. Precision pressure testing should be performed for accessing the structural integrity of any underground fuel tanks.

Labeling (PP3). Labeling includes general labeling and warning signs. General labeling refers to marking such items as containers, vessels, tanks, pipelines, and equipment to inform personnel of the particular chemical being stored or handled and the potential hazards involved. A labeling system developed by National Fire Protection Association (NFPA) or Department of Transportation (DOT), based on the characteristics of hazardous materials, can be adopted for this use.

Vehicle Positioning (PP4). Vehicle positioning is the practice of properly locating the loading or unloading vehicle so that it is stable and cannot be moved during transfer operations. Wheel chocks can be used to prevent truck movement. It also includes the proper positioning of vehicles relative to containment or flow diversion systems should a spill occur during material transfer operations.

Mitigation Cleanup (MC)

Once a hazardous material release occurs and is contained, the material has to be cleaned up and disposed of to protect plant personnel from potential health and fire hazards and to prevent the release of the substance to surface waters. Mitigation cleanup measures include the practices used to physically, mechanically, or chemically remove a spilled material. They can be applied separately or jointly.

Physical (MC1). Physical methods for cleanup of dry chemicals or waste sorbents include the use of brooms, shovels, or plows. Extra care should be taken to prevent the generation of any airborne dust during this cleanup process.

Mechanical (MC2). Mechanical methods for removing of spills/leaks in a concrete containment area include the use of vacuum cleaning systems and pumps. Vacuum cleaning includes vacuum cleaners or vacuum trucks, and pumping could include pumping to a storage vessel or tank.

Chemical (MC3). Chemical cleanup of hazardous material spills/leaks can be accomplished with the use of various sorbents and/or stabilization chemicals. Sorbents are compounds that remove materials by surface adsorption, or absorption in the sorbent bulk. Sorbents include materials such as activated carbon, polyurethane, polyolefins, and "universal sorbent material." Commercially available spill kits are recommended to be provided at many sites with potential releases or leaks of fuels or hazardous materials.

STRUCTURAL CONTROL MEASURES

Preventive Covering (PC)

Preventive covering comprises the physical enclosure of material, equipment, or process operation. Covering is applicable to storage areas for dry chemicals, hazardous materials, and hazardous wastes. Covering such as a tarp can be used to cover outdoor storage stockpiles of exposed materials to prevent windblown and runoff contamination. Drainage from a roof or building can be captured and directed to the stormwater sewer or drainage system to prevent it from coming in contact with chemicals used in the process areas. Two types of preventive covering are available.

Roof Structure/Tarp (PC1). Partial enclosure roof structures are normally provided to cover containers of volatile and flammable chemicals to prevent expansion or rupture from the heat of direct sunlight. Tarps are normally used to cover temporary outdoor storage stockpiles of exposed materials to prevent windblown and runoff contamination.

Building Structure (PC2). Total enclosure, pre-engineered, steel structures are used to meet security and weather requirements for specific site conditions.

Substance Containment (SC)

Substance containment measures are used to physically contain or capture a release of solid, liquid or gaseous material. These containment measures are a second line of defense by preventing a release of material from the primary containers to reach the receiving water. Containment will prevent both run-on and runoff. Substance containment can be further subdivided into secondary containment, flow diversion, and vapor/dust control.

Secondary Containment (SC1). Secondary containment is the physical confinement of material at its original location. Secondary containment is accomplished by physical structures or by collection equipment such as a berm area or drip pan to contain the material after it has been released from its original container. Secondary containment alternatives include dikes, berms, curbs, depressed areas, storage basins, sumps, drip pans, double-walled tanks, and double-walled pipes.

Flow Diversion (SC2). Flow diversion is used to divert a flow or discharge from its original location to containment or treatment facilities, usually at another location. Diversion systems include trenches, drains, graded pavements, overflow structures, sewers, and culverts. Additionally, sand carts and inflatable dams have been positioned at strategic locations as a temporary flow, diversion/control measure. Sand carts are primarily utilized at the C-6 facility and inflatable dams are utilized at the C-1 facility.

Vapor/Dust Control (SC3). Vapor/dust control is the collection, containment, or treatment of volatile fumes, vapors, gases, and particulates to prevent release to the atmosphere where deposition, due to condensation, rainfall, etc. may wash the chemicals to the ground and subsequently to the receiving water.

Mitigation Treatment (MT)

Treatment is a method of mitigation to reduce the potential impact of a material on the water quality, to pretreat a material before ultimate disposal, or to separate valuable materials for recovery. In order to apply treatment practices to a spilled material, the material first has to be collected and analyzed. Materials to be treated could include liquid materials collected in secondary-containment facilities, and contaminated stormwater collected in diked areas or storm sewers. Treatment alternatives that may be considered include an oil/water separator or an on-site wastewater treatment plant.

Oil/Water Separation (MT1). Oil/water separation is used to physically separate floating oil and grease from stormwater/wastewater. Oil/water separators are normally used for controlling the release of oil and grease from fueling stations, automotive repair shops, vehicle washing areas, and aircraft runways prior to discharge to the sanitary sewer for disposal.

On-site Wastewater Treatment (MT2). On-site treatment facilities can be tailored to treat the wastewater at industrial sites to meet the specific treatment requirements for subsequent reuse/recycling or disposal. Treatment processes can be classified as physical, chemical, and biological processes. Physical treatment processes can be used to mitigate material spills through removal of floating and settleable materials, volatile constituents, and dissolved organic materials from the wastewater. Some of the physical treatment processes that can be used to treat toxic and hazardous substances include filtration, volatilization, and carbon adsorption. Chemical treatment processes are used to remove dissolved organics and inorganics from a wastewater and to adjust the hydrogen or hydroxyl ion concentration for pH control. The more common chemical treatment processes include chemical coagulation and precipitation, neutralization, ion exchange, and chemical oxidation. Biological treatment is used to remove dissolved organics from wastewater by contact with a concentrated population of micro-organisms, which decompose the organics to carbon dioxide and water. On-site wastewater treatment processes should be based upon the characteristics of wastewater to be treated and the objectives of treatment.

Drainage System Improvement (DS)

By improving the drainage pattern at the site, possible pollutant cross-contamination with stormwater can be reduced. Improving the existing drainage system can be accomplished by re-grading the surface, or diverting the existing storm drain system using curbs, berms, etc.

Ultimate Disposal (UD)

Ultimate disposal measures are either associated with final disposal of potentially contaminated stormwater after proper treatment or pretreatment is made, or associated with final disposal on non contaminated stormwater runoff. Disposal alternatives suitable for point sources include discharge to a receiving water, and discharge to the sanitary sewer system.

Discharge to a Receiving Water (UD1). Discharge of potentially contaminated stormwater to a receiving water may be a feasible alternative after proper analysis or treatment, depending upon the water quality impact and the terms and conditions specified in the NPDES discharge permit. Disposal of a potentially contaminated stormwater to a receiving water would require treatment to levels consistent with applicable effluent limitations. This disposal alternative also applies to other sites where the stormwater runoff is without any potential contamination.

Sanitary Sewer System (UD2). Discharge to the municipal sanitary sewer system would depend of the compatibility of the material with the municipality's treatment system and local pretreatment requirements. The discharge to the municipal system would have to conform to applicable pretreatment requirements to avoid exceeding discharge limitations and existing sewer hydraulic capacity.

2.4.2 Current and Suggested BMPs

Upon reviewing the potential pollutants associated with each operation at the three facilities, and taking into consideration such ideas as short and long-term costs, level of potential risk, and maintenance upkeep, a list of BMP's to reduce the risk of a pollutant occurrence at each operation was generated. Tables 2a, 2b & 2c summarize both current and suggested BMP's for each operation at the C-1, C-6, and West Airport facilities respectively. Tables 3a, 3b and 3c gives descriptions of the BMP's selected for each potential pollutant area at each operation within each facility.

TABLE 2a
SUMMARY OF SELECTED BMPs FOR OPERATIONS
CONDUCTED AT THE DOUGLAS AIRCRAFT COMPANY C-1 FACILITY

Operation Location or Potential Area	BMPs																				
	ET	VI	PM	GH	PP1	PP2	PP3	PP4	MC1	MC2	MC3	PC1	PC2	SC1	SC2	SC3	MT1	MT2	DS	UD1	UD2
Paint & Chemical Storage	X	X		X			X	X	X	X	X		X	X							
Fuel Test	X	X	X	X	X	X	X	X	X	X	X			X							
Coolant Storage	X	X		X			X	X	X	X	X			X							
Compressor & Boiler House	X	X	X	X	X				X				X							X	
Metal Chip Compactor	X	X	X	X	X		X			X		X*		X*							
Aircraft Wash	X	X		X			X		X	X					X					X	X
Aircraft Assembly	X	X	X	X			X		X	X	X		X								
Painting, Alodining & Anodizing	X	X	X	X	X		X		X	X	X		X	X		X		X			X
Testing Support	X	X	X	X			X						X								
Maintenance	X	X		X			X		X	X	X	X	X								X
Fabrication Support	X	X	X	X					X		X		X								
Laboratory Support	X	X	X	X							X		X								
Degreasing	X	X		X			X		X	X	X		X			X					
Garage	X	X		X			X	X	X	X	X	X*(1)	X								
Metal Bonding	X	X	X	X			X		X	X	X		X								
Plastics Processing	X	X	X	X			X		X	X	X		X			X					
Machining Operations	X	X	X	X	X		X		X	X	X		X	X							
Tank Farms	X	X	X	X		X	X	X	X	X	X			X							
Outdoor Empty/Open Drum Storage	X*	X		X			X	X	X	X*	X	X*		X*							
Hazardous Waste Storage	X	X		X			X	X	X	X	X	X		X							
Fire Station	X	X	X	X																X	
Wastewater Pretreatment	X	X	X	X	X	X	X	X	X	X	X			X							X
Chemical Milling Operations	X	X	X	X	X		X	X	X	X	X		X	X				X			X

X = Current BMPs
X* = Suggested BMPs
(1) = Fuel Dispensing Island

BMPs

Nonstructural Control Measures
* Employee Training (ET)
* Visual Inspection (VI)
* Preventive Maintenance (PM)
* Good Housekeeping (GH)
* Preventive Practices (PP)
  - Monitoring (PP1)
  - Nondestructive Testing (PP2)
  - Labeling (PP3)
  - Vehicle Positioning (PP4)

Nonstructural Control Measures
* Mitigation Cleanup (MC)
  - Physical (MC1)
  - Mechanical (MC2)
  - Chemical (MC3)

Structural Control Measures
* Preventive Covering (PC)
  - Roof Structure/Tarp (PC1)
  - Building (PC2)
* Substance Containment (SC)
  - Secondary Containment (SC1)
  - Flow Diversion (SC2)
  - Vapor/Dust Control (SC3)

Structural Control Measures
* Mitigation Treatment (MT)
  - Oil/Water Separation (MT1)
  - On-Site Stormwater Treatment (MT2)
* Drainage System Improvement (DS)
* Ultimate Disposal (UD)
  - Discharge to a Receiving Water (UD1)
  - Sanitary Sewer System (UD2)

TABLE 2b
SUMMARY OF SELECTED BMPs FOR OPERATIONS
CONDUCTED AT THE DOUGLAS AIRCRAFT COMPANY C-6 FACILITY

Operation Location or Potential Area	BMPs																				
	ET	VI	PM	GH	PP1	PP2	PP3	PP4	MC1	MC2	MC3	PC1	PC2	SC1	SC2	SC3	MT1	MT2	DS	UD1	UD2
Chemical Storage	X	X		X	X*(2)		X		X	X	X	X*(3)		X*(3)							
Coolant Storage	X	X		X		X	X	X	X	X				X							
Compressor & Boiler House	X	X	X	X					X				X								X
Painting, Maskant Spraying	X	X	X	X			X		X		X		X	X		X		X			X
Testing Support	X	X	X	X									X								
Maintenance	X	X		X					X		X		X								
Metal Fabrication	X	X	X	X					X		X		X	X				X			X
Laboratory Support	X	X	X	X									X								
Degreasing	X	X		X					X	X			X			X					
Garage	X	X		X			X	X	X		X	X*(1)	X								
Plastics Processing	X	X	X	X					X		X		X			X					
Machining Operations	X	X	X	X	X				X	X	X		X	X*							
Salvage	X	X		X										X*	X*						
Solids Storage	X	X		X																	
Solvent & Oil Storage	X	X		X			X*			X	X	X*		X				X*			X*
Steam Cleaning (Vehicle Wash)	X	X		X													X				X
Chemical Milling Operations	X	X	X	X	X	X	X	X		X	X	X*		X	X*(4)			X			X
Outdoor Empty/Open Drum Storage	X	X		X			X	X	X	X*	X	X*		X*							
Hazardous Waste Storage	X	X		X			X	X	X	X	X	X		X					X*		
Fire Station	X	X	X	X																X	
Wastewater Pretreatment	X	X	X	X	X	X	X	X	X	X	X			X							X

X = Current BMPs
X* = Suggested BMPs
(1) = Fuel Dispensing Island
(2) = Cyanide Storage Building Only
(3) = Maskant Storage
(4) = Safety Shower

BMPs

Nonstructural Control Measures
* Employee Training (ET)
* Visual Inspection (VI)
* Preventive Maintenance (PM)
* Good Housekeeping (GH)
* Preventive Practices (PP)
  - Monitoring (PP1)
  - Nondestructive Testing (PP2)
  - Labeling (PP3)
  - Vehicle Positioning (PP4)

Nonstructural Control Measures
* Mitigation Cleanup (MC)
  - Physical (MC1)
  - Mechanical (MC2)
  - Chemical (MC3)

Structural Control Measures
* Preventive Covering (PC)
  - Roof Structure/Tarp (PC1)
  - Building (PC2)
* Substance Containment (SC)
  - Secondary Containment (SC1)
  - Flow Diversion (SC2)
  - Vapor/Dust Control (SC3)

Structural Control Measures
* Mitigation Treatment (MT)
  - Oil/Water Separation (MT1)
  - On-Site Stormwater Treatment (MT2)
* Drainage System Improvement (DS)
* Ultimate Disposal (UD)
  - Discharge to a Receiving Water (UD1)
  - Sanitary Sewer System (UD2)

TABLE 2c
SUMMARY OF SELECTED BMPs FOR OPERATIONS
CONDUCTED AT THE McDONNELL DOUGLAS CORPORATION WEST AIRPORT FACILITY

Operation Location or Potential Area	BMPs																				
	ET	VI	PM	GH	PP1	PP2	PP3	PP4	MC1	MC2	MC3	PC1	PC2	SC1	SC2	SC3	MT1	MT2	DS	UD1	UD2
Fuel Test	X	X	X	X	X	X	X	X	X	X	X						X				
Coolant Storage	X	X		X			X	X	X	X	X			X*							
Compressor & Boiler House	X	X	X	X	X				X				X							X	
Aircraft Assembly	X	X	X	X			X		X	X	X		X								
Painting, Alodining & Anodizing	X	X	X	X	X		X		X	X	X		X	X		X		X			X
Testing Support	X	X	X	X			X						X								
Maintenance	X	X		X			X		X	X	X	X	X								X
Degreasing	X	X		X			X		X	X	X		X			X					
Machining Operations	X	X	X	X	X		X		X	X	X		X	X*							
Tank Farms	X	X	X	X		X	X	X	X	X	X			X							
Outdoor Empty/Open Drum Storage	X*	X		X			X	X	X	X*	X	X*		X*							
Hazardous Waste Storage	X	X		X			X	X	X	X	X	X		X							
Vehicle Wash	X	X		X					X											X	
Fire Station	X	X	X	X																X	
Wastewater Pretreatment	X	X	X	X	X	X	X	X	X	X	X			X							X

X = Current BMPs
X* = Suggested BMPs
(1) = Fuel Dispensing Island

BMPs

Nonstructural Control Measures
* Employee Training (ET)
* Visual Inspection (VI)
* Preventive Maintenance (PM)
* Good Housekeeping (GH)
* Preventive Practices (PP)
  - Monitoring (PP1)
  - Nondestructive Testing (PP2)
  - Labeling (PP3)
  - Vehicle Positioning (PP4)

Nonstructural Control Measures
* Mitigation Cleanup (MC)
  - Physical (MC1)
  - Mechanical (MC2)
  - Chemical (MC3)

Structural Control Measures
* Preventive Covering (PC)
  - Roof Structure/Tarp (PC1)
  - Building (PC2)
* Substance Containment (SC)
  - Secondary Containment (SC1)
  - Flow Diversion (SC2)
  - Vapor/Dust Control (SC3)

Structural Control Measures
* Mitigation Treatment (MT)
  - Oil/Water Separation (MT1)
  - On-Site Stormwater Treatment (MT2)
* Drainage System Improvement (DS)
* Ultimate Disposal (UD)
  - Discharge to a Receiving Water (UD1)
  - Sanitary Sewer System (UD2)

TABLE 3a

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-1 FACILITY

Areas of Potential Concern	Description of BMPs
Overall Facility The BMPs associated with the "Overall Facility" section are utilized at ALL areas of potential concern (where applicable). Additional BMPs for specific areas of potential concern are shown respectively.	**Employee Training (ET)** • Define good housekeeping standards and conduct training for spill clean up, including use of spill kit (quarterly) in accordance with the Spill Prevention Plan. • Training for proper hazardous materials and wastes handling and inspection as per facility SOP's (quarterly), DPS 4.50 -1 and DAC 105 respectively. • Training for health and safety: Training to inform employees of the physical and chemical properties, health and environmental hazards of the materials that they are working with (proper handling procedures, type and use of appropriate personal protective equipment (PPE) and emergency response and preparedness procedures should be included in the review). • Training for proper use, operation and maintenance of all equipment (quarterly). • Train for use of drum logging program. • Training for proper reporting of chemical spills and emergencies. • Ensure employees receive hazardous communication and emergency response information training prior to assignment.

TABLE 3a (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-1 FACILITY

Areas of Potential Concern	Description of BMPs
	Visual Inspection (VI) • Conduct housekeeping inspections on set frequency ranging from daily to quarterly. • Conduct routine inspection of chemical containers for signs of degradation. • Inspect spill kit for physical condition (weekly). • Develop an inspection log to record the inspection results and maintain these logs for a minimum of three years. Implement a procedure to ensure that identified deficiencies are corrected within a prescribed time frame. • Inspect paved area for spills/leaks (weekly). **Preventative Maintenance (PM)** • Inspect and repair of all mechanical process and support equipment used throughout the facility to eliminate leaks/spills (weekly). • Inspect, test, and repair all equipment (weekly).

TABLE 3a (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-1 FACILITY

Areas of Potential Concern	Description of BMPs
	Good Housekeeping (GH) • Keep area clean and free from debris. • Keep tools, material, and equipments in proper location. • Prompt removal of any spills/leaks using spill kits. • Lift lids should be placed on all dumpsters. **Preventive Practices (PP)** • Ensure constant monitoring of process parameter to ensure proper operation of equipment to minimize potentials for spills (PP1). • Conduct periodic nondestructive testing of structures, vessels/tanks (above & below ground), pipes, valves, fittings and other equipment throughout the facility (PP2). • Label to containers, vessels, and equipment where hazardous materials/wastes are being stored or handled as per NFPA standards or DOT regulations (PP3). • Training for proper location of vehicles during hazardous materials loading and unloading operations (PP4).

TABLE 3a (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-1 FACILITY

Areas of Potential Concern	Description of BMPs
	Mitigation Cleanup (MC)
	• Use brooms or shovels for cleanup of dry materials as appropriate. Sweep area after initial bulk cleanup (MC1).
	• Use drain daming technique or an impervious blanket to cover catchment basins to minimize potential for storm water pollution (MC1).
	• Provide spill kit for emergency cleanup. A spill kit typically contains various absorbent materials including pads, pillows, and sorbent material (i.e., cat litter) (MC3).
	• Use various chemical sorbents from spill kit for emergency cleanup in accordance with SPCC procedures (MC3).
Paint & Chemical Storage	**Preventive Covering (PC)**
	• Paint and chemicals stored in totally enclosed pre-engineered buildings (PC2).
	Substance Containment (SC)
	• Use of berms, sumps, dikes, curbs used to contain spills/leaks of hazardous materials in the paint and chemical storage (SC1).

TABLE 3a (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-1 FACILITY

Areas of Potential Concern	Description of BMPs
Fuel Test	**Mitigation Cleanup (MC)** • Training in the transfer of test jet fuel protocols and procedures (MC2). **Substance Containment (SC)** • Use of berms, sumps, dikes, curbs used to contain spills/leaks of hazardous materials in the Fuel Test Area (SC1).
Coolant Storage	**Substance Containment (SC)** • Use of containment troughs, or drip pans to contain any spills/leaks that might occur from the coolant storage tanks/drums (SC1).
Metal Chip Compactor	**Mitigation Cleanup (MC)** • Training in the transfer of waste cutting oil protocols and procedures (MC2). **Preventive Covering (PC)** • Use of temporary canopy over a structure to cover and prevent storm water runoffs from the metal chip compactor (PC1). **Substance Containment (SC)** • Use of berms/curbs to prevent runons to the metal chip compactor (SC1).

TABLE 3a (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-1 FACILITY

Areas of Potential Concern	Description of BMPs
Aircraft Wash Area	**Substance Containment (SC)** • Use of diverter valve to divert wastewaters generated as a result of aircraft washing operation to the sanitary sewers and to divert storm water to the storm drains (SC2).
Painting, Alodining and Anodizing	**Mitigation Cleanup (MC)** • Training in the transfer of rinse waters and waste paint/alodine/stripped paint/alodine to the wastewater pretreatment system and the hazardous waste storage yard protocols and procedures (MC2). **Substance Containment (SC)** • Berms, curbs and sumps used to contain rinse waters and stripped paint/alodine (SC1). • Cascading water curtains used to entrain and trap vapors and fumes during painting, stripping and coating operations (SC2). **Mitigation Treatment (MT)** • The rinsewaters generated as a result of painting operation are treated partially before discharge into the sanitary sewers as per LACSD Industrial Waste Permit #806R-1 (MT2).

TABLE 3a (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-1 FACILITY

Areas of Potential Concern	Description of BMPs
	Ultimate Disposal (UD) • The pretreatment system effluent is analyzed and discharged into the sanitary sewers if the analysis of the effluent meet the limits set in the LACSD Industrial Waste Permit #804 & 806R-1. If the analysis does not meet the limits, then the effluent is sent back to be treated (UD2).
Degreasing	**Substance Containment (SC)** • Condensers are used in the degreasing vats to condense vapors/fumes generated during degreasing operations (SC3).
Garage	**Preventive Covering (PC)** • Partially enclosed roof structures is provided to cover the fuel dispensing islands to minimize volatization due to direct exposure to sunlight and to prevent runoffs which might contain petroleum residue (PC1).
Plastics Processing	**Substance Containment (SC)** • Scrubbers and ventilation hoods are used to contain air emissions from plastic processing operations (SC3).

TABLE 3a (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-1 FACILITY

Areas of Potential Concern	Description of BMPs
Machining Operations	**Substance Containment (SC)** • Blind sumps and trenches are used to contain cutting oils and coolant which are eventually pumped out and shipped out (SC1).
Tank Farm	**Substance Containment (SC)** • All piping and USTs are double walled with leak detection systems. The tank farm areas are bermed to contain spills and prevent runoff and runons (SC1).
Outdoor Empty/Open Drum Storage (Permanent and Staging Areas only)	**Preventive Covering (PC)** • Use of partially enclosed roof structures to cover the drums to minimize volatization due to direct exposure of sunlight and to prevent runoffs (PC1).
Hazardous Waste Storage Yard	**Substance Containment (SC)** • Use of berms to contain any spills, prevent runoff/runons (SC1). • Use of partially enclosed roof structures to cover the drums to minimize volatization due to direct exposure of sunlight and to prevent runoffs (PC1).

TABLE 3a (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-1 FACILITY

Areas of Potential Concern	Description of BMPs
Wastewater Pretreatment	**Substance Containment (SC)** • Use of partially enclosed roof structures to cover the drums to prevent runoffs (PC1).
Chemical Milling Operations	**Substance Containment (SC)** • Use of berms, trenches, sumps and double walled tanks to contain any spills (SC1). **Mitigation Treatment (MT)** • Pretreatment of rinse waters and disposal of the pretreated water to the sanitary sewers (MT2).

TABLE 3b

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-6 FACILITY

Areas of Potential Concern	Description of BMPs
Overall Facility The BMPs associated with the "Overall Facility" section are utilized at ALL areas of potential concern (where applicable). Additional BMPs for specific areas of potential concern are shown respectively.	**Employee Training (ET)** • Define good housekeeping standards and conduct training for spill clean up, including use of spill kit (quarterly) in accordance with the Spill Prevention Plan. • Training for proper hazardous materials and wastes handling and inspection as per facility SOP's (quarterly), DPS 4.50 -1 and DAC 105 respectively. • Training for health and safety: Training to inform employees of the physical and chemical properties, health and environmental hazards of the materials that they are working with (proper handling procedures, type and use of appropriate personal protective equipment (PPE) and emergency response and preparedness procedures should be included in the review). • Training for proper use, operation and maintenance of all equipment (quarterly). • Train for use of drum logging program. • Training for proper reporting of chemical spills and emergencies. • Ensure employees receive hazardous communication and emergency response information training prior to assignment.

TABLE 3b (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-6 FACILITY

Areas of Potential Concern	Description of BMPs
	Visual Inspection (VI) • Conduct housekeeping inspections on set frequency ranging from daily to quarterly. • Conduct routine inspection of chemical containers for signs of degradation. • Inspect spill kit for physical condition (weekly). • Develop an inspection log to record the inspection results and maintain these logs for a minimum of three years. Implement a procedure to ensure that identified deficiencies are corrected within a prescribed time frame. • Inspect paved area for spills/leaks (weekly). **Preventative Maintenance (PM)** • Inspect and repair of all mechanical process and support equipment used throughout the facility to eliminate leaks/spills (weekly). • Inspect, test, and repair all equipment (weekly).

TABLE 3b (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-6 FACILITY

Areas of Potential Concern	Description of BMPs
	Good Housekeeping (GH) • Keep area clean and free from debris. • Keep tools, materials, and equipments in proper location. • Prompt removal of any spills/leaks using spill kits. • Lift lids should be placed on all dumpsters. **Preventive Practices (PP)** • Ensure constant monitoring of process parameter to ensure proper operation of equipment to minimize potentials for spills (PP1). • Conduct periodic nondestructive testing of structures, vessels/tanks (above & below ground), pipes, valves, fittings and other equipment throughout the facility (PP2). • Label to containers, vessels, and equipment where hazardous materials/wastes are being stored or handled as per NFPA standards or DOT regulations (PP3). • Training for proper location of vehicles during hazardous materials loading and unloading operations (PP4).

TABLE 3b (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-6 FACILITY

Areas of Potential Concern	Description of BMPs
	Mitigation Cleanup (MC) • Use brooms or shovels for cleanup of dry materials as appropriate. Sweep area after initial bulk cleanup (MC1). • Use drain daming technique or an impervious blanket to cover catchment basins to minimize potential for storm water pollution (MC1). • Provide spill kit for emergency cleanup. A spill kit typically contains various absorbent materials including pads, pillows, and sorbent material (i.e., cat litter) (MC3). • Use various chemical sorbents from spill kit for emergency cleanup in accordance with SPCC procedures (MC3).
Chemical Storage	**Preventive Covering (PC)** • Storage of chemicals inside properly rated buildings (PC2). • Install a tarp-type roof over the maskant storage containers outside of Building 1 (PC1).

TABLE 3b (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-6 FACILITY

Areas of Potential Concern	Description of BMPs
	Substance Containment (SC) • Provide secondary containment for each hazard class chemical in the form of a permanent or temporary berm, tank, or sump (SC1). • Place a berm around the outdoor maskant storage tanks (east side of Building 1) and install guard posts around the storage containers (SC1).
Coolant Storage	**Substance Containment (SC)** • Provide secondary containment for each container of coolant in the form of a tank or drip pan (SC1).
Compressor and Boiler House	**Preventive Covering (PC)** • Both the compressor and boiler units for the facility are housed in permanent buildings (PC2). **Ultimate Disposal (UD)** • Boiler and compressor blowdown water is discharged to the sanitary sewer system in accordance with the facility NPDES Permit (UD2).

TABLE 3b (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-6 FACILITY

Areas of Potential Concern	Description of BMPs
Painting, Maskant Spraying	**Preventive Covering (PC)** • All painting and masking operations are conducted inside permanent buildings (PC2). **Substance Containment (SC)** • Scrubber water is collected in a blind sump, then pumped into the facility wastewater treatment plant (SC1). • A wet scrubber is used for paint and maskant vapor and particulate control (SC3). **Mitigation Treatment (MT)** • All scrubber water is processed through the facility waste water treatment plant (MT2). **Ultimate Disposal (UD)** • All scrubber water is eventually discharged to the sanitary sewer system, after treatment (UD2).
Testing Support	**Preventive Covering (PC)** • All testing support operations are conducted inside permanent buildings (PC2).

TABLE 3b (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-6 FACILITY

Areas of Potential Concern	Description of BMPs
Maintenance	**Preventive Covering (PC)** • Maintenance operations supporting both the facility and process are conducted inside permanent buildings (PC2).
Metal Fabrication	**Preventive Covering (PC)** • Metal fabrication processes are conducted inside permanent building (PC2). **Substance Containment (SC)** • Metal fabrication processes involving chemical use are bermed (SC1). **Mitigation Treatment (MT)** • Waste and rinse water from metal finishing operations are treated in the wastewater treatment plant, including the chrome reduction unit (MT2). **Ultimate Disposal (UD)** • Water from the wastewater treatment plant is ultimately discharged to the sanitary sewer (UD2).
Laboratory Support	**Preventive Covering (PC)** • All laboratory support operations are conducted inside permanent buildings (PC2).

TABLE 3b (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-6 FACILITY

Areas of Potential Concern	Description of BMPs
Degreasing	**Preventive Covering (PC)** • All degreasing operations are conducted inside permanent buildings (PC2). **Substance Containment (SC)** • Vapor degreasing solvent emissions are controlled with the cooling oils of the vapor degreaser (SC3).
Garage	**Preventive Covering (PC)** • An awning covering the fuel dispensing island would eliminate potential storm drain contamination by preventing rain water from washing small amounts of spilled fuel into the nearby storm drain (PC1). • All other garage activities are conducted inside a building suited for garage activities (PC2).
Plastics Processing	**Preventive Covering (PC)** • All plastics processing operations are conducted inside permanent buildings (PC2).

TABLE 3b (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-6 FACILITY

Areas of Potential Concern	Description of BMPs
	Substance Containment (SC)
	• As appropriate, plastic vapor and dust controls are used throughout the plastics processing operations (SC3).
Machining Operations	**Preventive Covering (PC)**
	• All machining operations are conducted inside permanent buildings (PC2).
	Substance Containment (SC)
	• Install aboveground berms around the existing sumps (SC1).
	• Install drain and blind sump at the doorways of the N/C Machine Shop (SC1).
Solvent and Oil Storage	**Preventive Practice (PP)**
	• Label the drain valve located on the east side of the storage berm "Do not open - authorized personnel only" (PP3).
	Preventive Covering (PC)
	• Construct a roof over the storage area (PC1).
	Substance Containment (SC)
	• The storage area is bermed (SC1).

TABLE 3b (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-6 FACILITY

Areas of Potential Concern	Description of BMPs
	Mitigation Treatment (MT) • Connect the drainage valve to the facility wastewater treatment plant (MT2). **Ultimate Disposal (UD)** • Discharge water to sanitary sewer system after treatment (UD2).
Salvage Yard	**Substance Containment (SC)** • In addition to the existing berm, an extension along the south side, along with an impervious seal, would prevent water from flowing into the drainage canal, just south of the salvage yard (SC1). • Locate an inflation dam near the salvage yard metal sump bin for temporary placement in the storm canal should a release occur (SC2).
Steam Cleaning (Vehicle Wash)	**Substance Containment (SC)** • The vehicle wash area is bermed with a blind sump (SC1). **Mitigation Treatment (MT)** • Water from the steam cleaning operations is processed through an ultrafiltration unit, then to a three stage clarifier for oil water separation (MT1).

TABLE 3b (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-6 FACILITY

Areas of Potential Concern	Description of BMPs
	Ultimate Disposal (UD)
	• Treated steam cleaning water is discharged to the sanitary sewer (UD2).
Chemical Milling (Safety Shower Located Near Building 12)	**Preventive Covering (PC)**
	• Construct a roof structure over the chemical milling storage tank areas (PC1).
	Substance Containment (SC)
	• The storage tanks for the chemical milling operations are bermed (SC1).
	• Ensure that adequate diking materials are available, prior to safety shower use, to absorb potentially contaminated water before it enters the storm drain (SC1).
	• Construct a diversion drain from the safety shower to the facility wastewater treatment plant (SC2).
	Mitigation Treatment (MT)
	• Rinsewaters from the milling operations are processed through the wastewater treatment plant (MT2).
	Ultimate Disposal (UD)
	• Treated wastewater is discharged through the sanitary sewers (UD2).

TABLE 3b (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-6 FACILITY

Areas of Potential Concern	Description of BMPs
Outdoor Empty/Open Drum Storage	**Preventive Covering (PC)** • Extend the roof structure of the hazardous waste yard to the drum storage area (PC1). **Substance Containment (SC)** • Install a berm along the east side of the hazardous waste yard (SC1). • Construct a divergent canal from the waste yard, away from the storm drain (SC2). • Locate sand cart closer to the storm drain (SC2).
Hazardous Waste Yard	**Employee Training (ET)** • Instruct hazardous waste contractor to mitigate spills of hazardous materials. • Instruct hazardous waste contractor to implement storm drain protective measures in the event of a spill. • Instruct responsible DAC off-hours employees in response procedure to protect the storm drain from contamination due to a release in the hazardous waste yard.

TABLE 3b (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-6 FACILITY

Areas of Potential Concern	Description of BMPs
	Preventive Covering (PC) • A roof structure covers the portion of the hazardous waste yard where chemical handling and transferring takes place (PC1). **Substance Containment (SC)** • The chemical handling and storage areas of the hazardous waste yard are bermed (SC1). **Drainage System Improvement (DS)** • Provide an inflatable dam, to be used on a temporary basis, when a storm event carries the possibility of contamination to the storm drain located downgradient from the hazardous waste yard.
Fire Station	**Ultimate Disposal (UD)** • Fire water is discharged to the storm drain system in accordance with the facility NPDES Permit (UD1).
Wastewater Pretreatment	**Substance Containment (SC)** • The wastewater pretreatment plant is bermed (SC1).

TABLE 3b (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE C-6 FACILITY

Areas of Potential Concern	Description of BMPs
	Ultimate Disposal (UD)
	• Treated water from the wastewater pretreatment plant is discharged to the sanitary sewer system (UD2).

TABLE 3c

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE WEST AIRPORT FACILITY

Areas of Potential Concern	Description of BMPs
Overall Facility The BMPs associated with the "Overall Facility" section are utilized at ALL areas of potential concern (where applicable). Additional BMPs for specific areas of potential concern are shown respectively.	**Employee Training (ET)** • Define good housekeeping standards and conduct training for spill clean up in accordance with the Spill Prevention Plan. • Training for proper hazardous materials and wastes handling and inspection as per facility SOP's (quarterly), DPS 4.50 -1 and DAC 105 respectively. • Training for health and safety: Training to inform employees of the physical and chemical properties, health and environmental hazards of the materials that they are working with (proper handling procedures, type and use of appropriate personal protective equipment (PPE) and emergency response and preparedness procedures should be included in the review). • Training for proper use, operation and maintenance of all equipment (quarterly). • Training for proper reporting of chemical spills and emergencies. • Ensure employees receive hazardous communication and emergency response information training prior to assignment.

TABLE 3c (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE WEST AIRPORT FACILITY

Areas of Potential Concern	Description of BMPs
	Visual Inspection (VI) • Conduct housekeeping inspections on set frequency ranging from daily to quarterly. • Conduct routine inspection of chemical containers for signs of degradation. • Develop an inspection log to record the inspection results and maintain these logs for a minimum of three years. Implement a procedure to ensure that identified deficiencies are corrected within a prescribed time frame. • Inspect paved area for spills/leaks (weekly). **Preventative Maintenance (PM)** • Inspect and repair of all mechanical process and support equipment used throughout the facility to eliminate leaks/spills (weekly). • Inspect, test, and repair all equipment (weekly).

TABLE 3c (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE WEST AIRPORT FACILITY

Areas of Potential Concern	Description of BMPs
	Good Housekeeping (GH) • Keep area clean and free from debris. • Keep tools, materials, and equipments in proper location. • Prompt removal of any spills/leaks. • Lift lids should be placed on all dumpsters. **Preventive Practices (PP)** • Ensure constant monitoring of process parameter to ensure proper operation of equipment to minimize potentials for spills (PP1). • Conduct periodic nondestructive testing of structures, vessels/tanks (above & below ground), pipes, valves, fittings and other equipment throughout the facility (PP2). • Label to containers, vessels, and equipment where hazardous materials/wastes are being stored or handled as per NFPA standards or DOT regulations (PP3). • Training for proper location of vehicles during hazardous materials loading and unloading operations (PP4).

TABLE 3c (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE WEST AIRPORT FACILITY

Areas of Potential Concern	Description of BMPs
	Mitigation Cleanup (MC) • Use brooms or shovels for cleanup of dry materials as appropriate. Sweep area after initial bulk cleanup (MC1). • Use drain daming technique or an impervious blanket to cover catchment basins to minimize potential for storm water pollution (MC1).
Fuel Test	**Mitigation Cleanup (MC)** • All storm drains near the fuel tank test area are dammed using visqueen sheets, sand and temporary berms while conducting the fuel tests (MC1). **Mitigation Treatment (MT)** • An oil/water separation is planned to pretreat any discharges in the storm drains near the fuel test area before discharge into the storm sewers (MT1).
Coolant Storage	**Substance Containment (SC)** • Containment of spills/leaks from coolant storage drums using drip pans and temporary berms (SC1).

TABLE 3c (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE WEST AIRPORT FACILITY

Areas of Potential Concern	Description of BMPs
Painting, Alodining and Anodizing	**Mitigation Cleanup (MC)** • Training in the transfer of rinse waters and waste paint/alodine/stripped paint/alodine to the wastewater pretreatment system and the hazardous waste storage yard protocols and procedures (MC2). **Substance Containment (SC)** • Berms, curbs and sumps used to contain rinse waters and stripped paint/alodine (SC1). • Cascading water curtains used to entrain and trap vapors and fumes during painting, stripping and coating operations (SC2). **Mitigation Treatment (MT)** • The rinsewaters generated as a result of painting operation are treated prior to discharge into the sanitary sewers in accordance with LACSD Industrial Waste Permit #11482 (MT2).
Machining Operations	**Substance Containment (SC)** • Blind sumps and trenches are used to contain cutting oils and coolant which are eventually pumped out and recycled onsite (SC1).

TABLE 3c (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE WEST AIRPORT FACILITY

Areas of Potential Concern	Description of BMPs
Hazardous Waste Storage Yard	**Substance Containment (SC)** • Use of berms to contain any spills, prevent runoff/runons (SC1). • Use of partially enclosed roof structures to cover the drums to minimize volatization due to direct exposure of sunlight and to prevent runoffs (PC1). • Use of sensors and alarm systems to alert fire services to any spill in the hazardous waste yard.
Tank Farm	**Substance Containment (SC)** • Use of temporary berms to contain any spills/leaks and prevent runoffs/runons (SC1). **Mitigation Cleanup (MC)** • Use of drain damming techniques to prevent unapproved discharges in the storm drains (MC2).
Outdoor Empty/Open Drum Storage (Permanent and Staging Areas only)	**Preventive Covering (PC)** • Use of partially enclosed roof structures to cover the drums to minimize volatization due to direct exposure of sunlight and to prevent runoffs (PC1).

TABLE 3c (Continued)

DESCRIPTION OF SELECTED BMPs FOR EACH POTENTIAL POLLUTANT AREA AT THE WEST AIRPORT FACILITY

Areas of Potential Concern	Description of BMPs
	Substance Containment (SC)
	• Use of berms to contain any spills, prevent runoff/runons (SC1).

2.5 ADMINISTRATIVE PROCEDURES

In order to keep track of process changes, BMP's, record keeping, and reporting requirements, an administrative system will be developed and implemented. Administrative procedures will address the topics of responsible parties, plan review, plan revision, reporting, and record keeping (i.e., personnel training, inspections, significant spills, follow-up responses). A pollution prevention committee will be initiated to oversee all administrative procedures.

2.5.1 Responsible Parties

The name and signature of the person responsible for preparing the SWPPP and a certified statement as to its contents is included in Appendix D. A pollution prevention committee (PPC) responsible for overseeing the development, administration, and implementation of the SWPPP has been formed. The names of the personnel and a certification of acceptance to these positions and responsibilities is included in Appendix D.

A record keeper responsible for keeping track of all records associated with the SWPPP was assigned by the PPC. The name of the person responsible for record keeping and a certification of acceptance to this position and it's responsibilities is included in Appendix D.

A letter of certification stating that all non-stormwater discharges to any stormwater conveyance system or body of water have been eliminated has to be signed in accordance with the NPDES general permit and is included in Appendix D. This certification includes a description of any tests for the presence of non-stormwater discharges, the methods used, the dates of the testing, and any on-site drainage points that were observed during the testing.

Inspectors assigned by the PPC will be responsible for periodic inspections of the facility operations to ensure the implementation of the SWPPP. A form which includes the signatures and most recent date of training for each qualified inspector is included in Appendix E.

2.5.2 Plan Review

The SWPPP shall be reviewed at least every 6 months. The responsible party will immediately revise and update the appropriate document, in accordance with Plan Revision procedures, when information critical to the purpose of the document has changed. Examples of such changes are as follows:

Changes in materials used on site.

Changes in the materials handling procedures.

Changes in management practices.

The plan review process will be recorded using the form in Appendix E and submitted to the appropriate record keeping personnel assigned by the PPC.

Periodic inspections of facility operations to ensure the implementation of the SWPPP shall be performed on a monthly basis. Only trained personnel chosen by the PPC will be allowed to participate in the inspection process.

A checklist to be used during each facility inspection is included in Appendix E. After each inspection, the completed checklist will be signed by the inspector and given to the appropriate record keeping personnel assigned by the PPC. This checklist will be utilized for tracking and determining follow-up procedures used to ensure appropriate response to an inspection.

2.5.3 Plan Revision

The SWPPP will be amended whenever there is a change in construction, operation, or maintenance which may effect the discharge of significant quantities of pollutants to surface water, ground waters, or the local agency's storm drain system. The SWPPP will also be amended if it is in violation of any conditions of the NPDES permit, or has not achieved the general objectives of controlling pollutants in stormwater discharges. In the event that a revision of the SWPPP is required, at a minimum the following procedures, based on the changes in the activity, will be carried out:

Changes in materials used on site.

i) The material inventory will be updated for all affected operations.

ii) The table of potential pollution to stormwater will be updated.

iii) Material handling procedures will be changed if needed.

iv) BMP's will be updated if necessary.

Changes in the materials handling procedures.

i) The table of potential pollution to stormwater will be updated if necessary.

ii) Material handling procedures will be changed.

iii) BMP's will be updated if necessary.

Response to specific problems anticipated while conducting the daily operations at the facility (e.g., spills).

i) The table of potential pollution to stormwater will be updated if necessary.

ii) Material handling procedures will be changed if needed.

iii) BMP's and spill prevention plans will be updated if necessary.

In the event of any revision to the SWPPP, a plan revision form, included in Appendix E, will be filled out and given to the appropriate record keeping personnel assigned by the PPC.

2.5.4 Reporting

The following is a list of actions that require a report and/or report form to be submitted to the appropriate record keeping personnel assigned by the PPC. Each of these forms will be filled out by the qualified personnel responsible for that objective and sent to the record keeper.

Any revision to the SWPPP;

Semi-annual review of SWPPP;

Change in qualified inspectors;

Inspection checklist and follow-up responses;

Report of significant spill; and

General personnel training log.

2.5.5 Record Keeping

Records will be kept of all significant stormwater pollution events (e.g., spills), in-house inspections, follow-up responses to these inspections, and any significant changes in on-site activities. These records will be maintained on-site for at least five years. A copy of the facility's Spill Prevention Plan (SPP) or Spill Prevention Control and Countermeasures (SPCC) plan and the Standard Operating Procedures (SOP's) manual will also be kept on-site in an accessible area. All certification forms will be kept with the SWPPP.

Because the RWQCB may be conducting annual facility inspections to verify that all elements of the SWPPP are accurate, the record keeper will have ready all documents, reports and forms as required by the SWPPP.

Appendix

JMM James M. Montgomery

Appendix A

JMM James M. Montgomery
Consulting Engineers, Inc.

APPENDIX A

NOTICE OF INTENT (NOI) PERMIT

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

NOTICE OF INTENT (NOI)

GENERAL INSTRUCTIONS

Who Must Apply

Facilities which have been defined by the U.S. Environmental Protection Agency regulations as having "storm water discharges associated with industrial activity" must obtain coverage under an NPDES permit for their storm water discharges. Facilities requiring coverage are defined in 40 CFR Section 122.26 (b)(14). All facilities in California, except those listed below, may seek coverage under the State Board's NPDES General Permit.

a. Facilities in Santa Clara County which drain to San Francisco Bay must seek coverage under a separate general permit issued by the San Francisco Bay Regional Board.

b. Facilities with an existing NPDES permit that specifically limits and regulates storm water discharges.

c. Construction activities greater than five acres must obtain coverage under an NPDES construction general permit.

d. Facilities on Indian lands will be regulated by the EPA.

e. Logging Activities.

Where to Apply

The NOI should be mailed to the State Water Resources Control Board at the following address:

State Water Resources Control Board
Division of Water Quality
P.O. Box 1977
Sacramento, CA 95812-1977
Attn: Storm Water Permitting Section

When to Apply

Owners/operators of existing facilities must file a NOI, along with the appropriate annual fee, no earlier than January 15, 1992, but no later than March 30, 1992. Owners/operators of new facilities (those beginning operations after March 30, 1992) must file a NOI at least 30 days prior to the beginning of operations.

Fees[1)]

The annual fee is $250.00 for each facility which discharges into a municipal separate storm water system regulated by an area-wide urban storm water permit, and $500.00 for all other facilities. Facilities that have either a NPDES permit, or WDR and already pay an annual fee are not subject to an additional fee for the storm water permit. Feedlots subject to this permit will pay a one-time only fee of $2,000. Feedlots that already have a NPDES permit or WDR and have paid the $2,000 fee do not have to pay an additional fee for the storm water permit.

Note: 1) An annual fee is expected to be in effect by early January 1992.

Discharges to separate storm drain systems are those that discharge to a collection system operated by municipalities, flood control districts, utilities, or similar entities. Storm water discharges directly to waters of the U.S. will typically have an outfall structure directly from the facility to a river, creek, lake, ocean, etc. Indirect discharges are those that may flow over adjacent properties or right-of-ways prior to discharging to waters of the U.S.

Regardless of point of discharge, the applicant must determine the closest receiving water for its storm water discharge. If discharge is to a separate storm drain system, the purveyor of that system should know the receiving water. The name of the receiving water of a direct discharge should be easily available while the receiving water of an indirect discharge may require some effort to identify.

SECTION V—INDUSTRIAL INFORMATION

Part A of this section requests the owner/operator to provide the standard industrial classification (SIC) code(s) which best describes the industrial activity taking place at your facility. Briefly describe the nature of business in Part B. In Part C, check the general industrial activities that take place at the facility.

SECTION VI—MATERIAL HANDLING/MANAGEMENT PRACTICES

Part A of this section requires identification of the type(s) of materials stored and handled outdoors. If other types of materials other than those listed are maintained on-site, please check other and describe the type of material.

Part B of this section requests information on any existing management practices employed at the facility. Check the appropriate categories or list other control measures you use at your facility. If none are used, leave this part blank.

SECTION VII—FACILITY INFORMATION

List the size, in acres or square feet, of the facility and the percentage of the site that is impervious.

SECTION VIII—REGULATORY STATUS

Check the appropriate box(es) and indicate the identification number of any permits currently in affect at the facility.

State Water Resources Control Board

NOTICE OF INTENT

FOR

GENERAL PERMIT TO DISCHARGE STORM WATER ASSOCIATED WITH INDUSTRIAL ACTIVITY (WQ Order No. 91 - 13 - DWQ)

(Excluding Construction Activities)

MARK ONLY ONE ITEM

1. ☐ Existing Facility
2. ☐ New Facility
3. ☐ Change of Information — WDID # _____

I. OWNER/OPERATOR

Name:

Mailing Address:

City:

State: | Zip: | Phone: ( ) -

Contact Person:

A. Owner/Operator Type: (Check one)
1. ☐ City 2. ☐ County 3. ☐ State 4. ☐ Federal
5. ☐ Special District 6. ☐ Government Combo 7. ☐ Private

B. 1. ☐ Owner 2. ☐ Operator 3. ☐ Owner/Operator

II. FACILITY/SITE INFORMATION

Facility Name:

Street Address:

City:

County:

Contact Person:

State: CA | Zip: | Phone: ( ) -

Parcel Number(s) (If more than 4 apply to facility, enter additional numbers in SECTION IX. A):

A. _____ B. _____ C. _____ D. _____

III. BILLING ADDRESS

Send Billing Statements To: A. ☐ Owner/Operator B. ☐ Facility C. ☐ Other (Specify in SECTION IX. B)

IV. RECEIVING WATER INFORMATION

A. Does your facility's storm water discharge directly to: (Check one)

1. ☐ Storm drain system

Owner of storm drain system: (Name) _____

2. ☐ Directly to waters of U.S. (e.g., river, lake, creek, ocean)
3. ☐ Indirectly to waters of U.S.

B. Name of closest receiving water:

_____

V. INDUSTRIAL INFORMATION

A. SIC Code(s):

1. ☐☐☐☐ 2. ☐☐☐☐ 3. ☐☐☐☐ 4. ☐☐☐☐

B. Type of Business: _____

C. Industrial activities at facility: (Check all that apply)

1. ☐ Manufacturing
2. ☐ Vehicle Maintenance
3. ☐ Hazardous Waste Treatment, Storage, or Disposal Facility (RCRA Subtitle C)
4. ☐ Material Storage
5. ☐ Vehicle Storage
6. ☐ Material Handling
7. ☐ Wastewater Treatment
8. ☐ Power Generation
9. ☐ Recycling
10. ☐ Landfill
99. ☐ Other: _____

NOTICE OF INTENT

SITE MAP

P INFORMATION

TYPE _____

NUMBER _____

SCALE _____

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

FACILITY

COUNTY

DATE:	DRAWN:	CHECKED:

Appendix B

JMM James M. Montgomery

APPENDIX B

NPDES GENERAL PERMIT

FACILITIES COVERED BY THIS PERMIT

Industrial facilities include Federal, State, municipally owned, and private facilities from the following categories:

FACILITIES SUBJECT TO STORM WATER EFFLUENT GUIDELINE LIMITATIONS: Includes categories of facilities specified in 40 CFR Subchapter N. Currently, these are Cement Manufacturing (40 CFR 411), Feedlots (40 CFR 412), Fertilizer Manufacturing (40 CFR 418), Petroleum Refining (40 CFR 419), Phosphate Manufacturing (40 CFR 422), Steam Electric (40 CFR 423), Coal Mining (40 CFR 434), Mineral Mining and Processing (40 CFR 436), Ore Mining and Dressing (40 CFR 440), and Asphalt Emulsion (40 CFR 443).

MANUFACTURING FACILITIES: Standard Industrial Classifications (SICs) 24 (except 2411 and 2434), 26 (except 265 and 267), 28 (except 283) 29, 311, 32 (except 323), 33, 3441, and 373.

OIL AND GAS/MINING FACILITIES: SICs 10 through 14 including active or inactive mining operations (except for areas of coal mining operations meeting the definition of a reclamation area under 40 CFR 434.11(l) because of performance bond issued to the facility by the appropriate Surface Mining Control and Reclamation Act (SMCRA) authority has been released, or except for area of non-coal mining operations which have been released from applicable State or Federal reclamation requirements after December 17, 1990) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge stormwater contaminated by contact with or that has come into contact with any overburden, raw material, intermediate products, finished products, by-products or waste products located on the site of such operations. Inactive mining operations are mined sites that are not being actively mined, but which have an identifiable owner/operator. Inactive mining sites do not include sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined material, nor sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim.

HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES: Includes those operating under interim status or a permit under Subtitle C of the Resource Conservation and Recovery Act (RCRA).

LANDFILLS, LAND APPLICATION SITES, AND OPEN DUMPS: Sites that receive or have received industrial waste from any of the facilities covered by this permit, sites subject to regulation under Subtitle D of RCRAs, and sites that have accepted wastes from construction activities (construction activities include any clearing, grading, or excavation that results in disturbance of five acres or more).

RECYCLING FACILITIES: SICs 5015 and 5093. These codes include metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards.

STEAM ELECTRIC POWER GENERATING FACILITIES: Includes coal handling sites.

TRANSPORTATION FACILITIES: SICs 40, 41, 42 (except 4221-25), 43, 44, 45, and 5171 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication) or other operations identified herein that are associated with industrial activity.

SEWAGE OR WASTEWATER TREATMENT WORKS: Facilities used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of one million gallons per day or more, or required to have an approved pretreatment program under 40 CFR Part 403. Not included are farm lands, domestic gardens, or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with Section 405 of the CWA.

MANUFACTURING FACILITIES WHERE MATERIALS ARE EXPOSED TO STORMWATER: SICs 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37 (except 373), 38, 39, and 4221-4225.

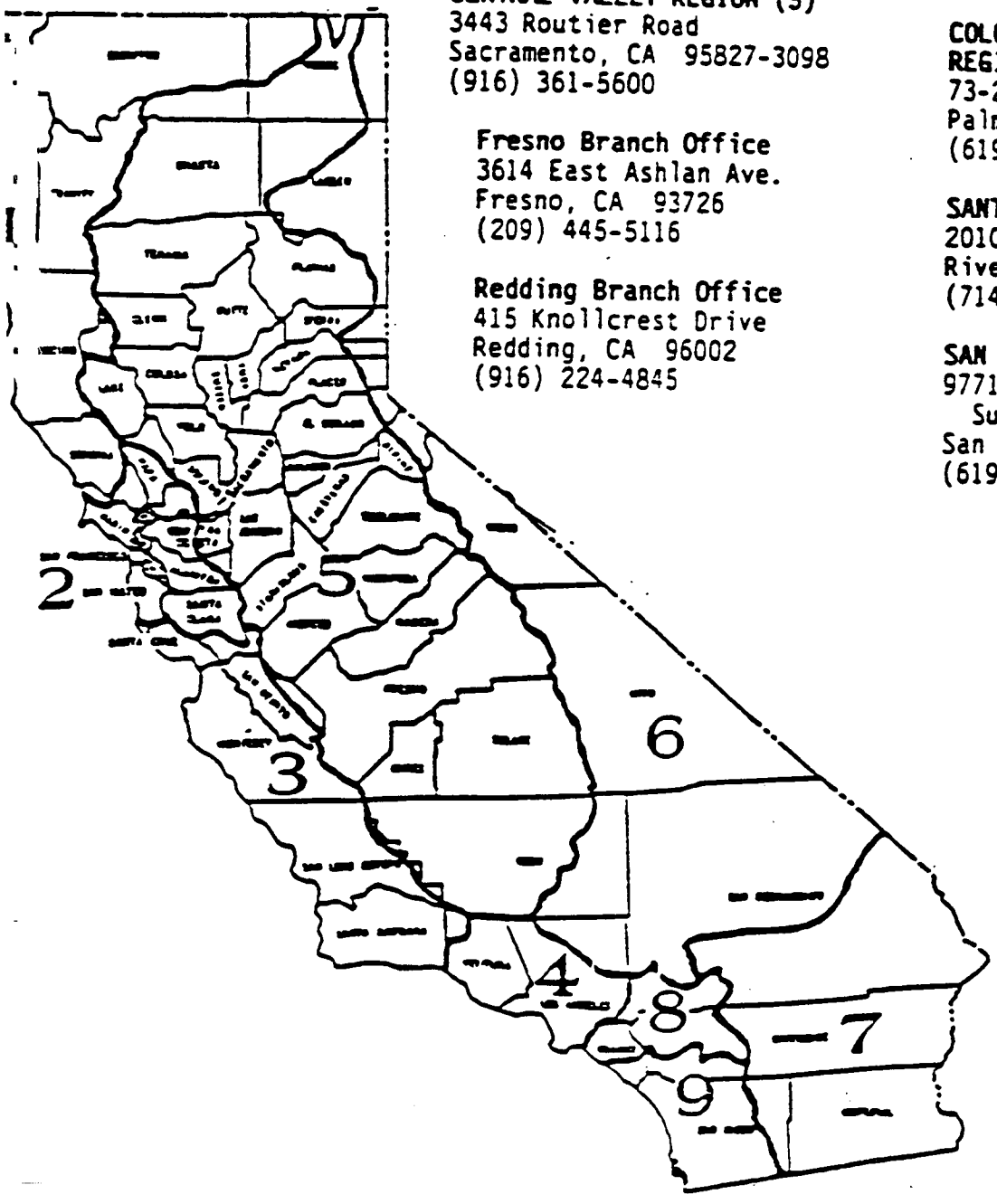
STATE WATER RESOURCES CONTROL BOARD

P. O. Box 100, Sacramento, CA 94244-2130

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARDS

RTH COAST REGION (1)
:0 Guerneville Road
anta Rosa, CA 95403
707) 576-2220

AN FRANCISCO BAY REGION (2)
1 Weber Street, Suite 500
land, CA 94612
510) 464-1255



CENTRAL COAST REGION (3)
81 Higuera Street, Suite 200
San Luis Obispo, CA 93401-5414
(805) 549-3147

LOS ANGELES REGION (4)
101 Centre Plaza Drive
Monterey Park, CA 91754-2156
(213) 266-7500

CENTRAL VALLEY REGION (5)
3443 Routier Road
Sacramento, CA 95827-3098
(916) 361-5600

Fresno Branch Office
3614 East Ashlan Ave.
Fresno, CA 93726
(209) 445-5116

Redding Branch Office
415 Knollcrest Drive
Redding, CA 96002
(916) 224-4845

LAHONTAN REGION (6)
2092 Lake Tahoe Blvd.,
Suite #2
S. Lake Tahoe, CA 96150
(916) 544-3481

Victorville Branch
15428 Civic Dr.,
Suite #100
Victorville, CA 92392
(619) 241-6583

COLORADO RIVER BASIN REGION (7)
73-271 HWY 111, Suite #21
Palm Desert, CA 92260
(619) 346-7491

SANTA ANA REGION (8)
2010 Iowa Avenue
Riverside, CA 92507
(714) 782-4130

SAN DIEGO REGION (9)
9771 Clairemont Mesa Blvd.
Suite B
San Diego, CA 92124
(619) 265-5114

DEFINITIONS

1. "Best Management Practices" ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

2. Clean Water Act (CWA) means the Federal Water Pollution Control Act enacted by Public Law 92-500 as amended by Public Laws 95-217, 95-576, 96-483, and 97-117; 33 USC. 1251 et seq.

3. "Facility" is a collection of industrial processes discharging storm water associated with industrial activity within the property boundary or operational unit.

4. "Non-Storm Water Discharge" means any discharge to storm water systems that is not composed entirely of storm water except discharges pursuant to a NPDES permit and discharges resulting from fire fighting activities.

5. "Significant Materials" includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of CERLCA; any chemical the facility is required to report pursuant to Section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.

6. "Significant Quantities" is the volume, concentrations, or mass of a pollutant in storm water discharge that can cause or threaten to cause pollution, contamination, or nuisance, adversely impact human health or the environment, and cause or contribute to a violation of any applicable water quality standards for the receiving water.

7. "Storm water" means storm water runoff, snow melt runoff, and surface runoff and drainage. It excludes infiltration and runoff from agricultural land.

8. "Storm Water Associated with Industrial Activity" means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program. The term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at 40 CFR 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. The term also includes storm water discharges from all areas listed in the previous sentence (except access roads) where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water. Material handling activities include the: storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product, or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are Federally, State, or municipally owned or operated that meet the description of the facilities listed in this paragraph) include those facilities designated under 40 CFR 122.26(a)(1)(v).

STATE WATER RESOURCES CONTROL BOARD (STATE WATER BOARD)
WATER QUALITY ORDER NO. 91-13-DWQ
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT NO. CAS000001

WASTE DISCHARGE REQUIREMENTS (WDRS)
FOR
DISCHARGES OF STORM WATER ASSOCIATED WITH INDUSTRIAL ACTIVITIES
EXCLUDING CONSTRUCTION ACTIVITIES

The State Water Board finds that:

1. Federal Regulations for storm water discharges were issued by the U.S. Environmental Protection Agency on November 16, 1990 (40 Code of Federal Regulations (CFR) Parts 122, 123, and 124). The regulations require specific categories of facilities, which discharge storm water associated with industrial activity (storm water), to obtain a NPDES permit and to implement Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate industrial storm water pollution.

2. This General Permit (Permit) shall regulate discharges of storm water from specific categories of industrial facilities identified in Attachment 1, excluding discharges covered by existing NPDES permits which already include provisions regulating discharges of storm water, construction activities, or dischargers determined ineligible for coverage by this Permit by the California Regional Water Quality Control Boards (Regional Boards).

3. All dischargers participating in group applications must either obtain coverage under this Permit or apply for an individual permit by October 1, 1992. The State Water Board has elected not to accept EPA's group application approach or to adopt general permits for industrial groups at this time.

4. This Permit does not preempt or supersede the authority of local agencies to prohibit, restrict, or control discharges of storm water to storm drain systems or other watercourses within their jurisdictions, as allowed by State and Federal law.

5. To obtain authorization for continued and future storm water discharge pursuant to this Permit, owners, or operators when the owners does operate the facility (dischargers), must submit a Notice of Intent (NOI) and appropriate fee. Unless notified to the contrary, dischargers who submit a NOI and appropriate fee are authorized to discharge storm water under the terms and conditions of this Permit.

6. If an individual NPDES permit is issued to a discharger otherwise subject to this Permit, or an alternative general permit is subsequently adopted, which covers storm water discharges regulated by this Permit, applicability of this Permit to such discharges is automatically terminated on the effective date of the individual permit or the date of approval for coverage under the subsequent general Permit.

7. Effluent limitations, and toxic and effluent standards established in Sections 208(b), 301, 302, 303(d), 304, 306, 307, and 403 of the Federal Clean Water Act (CWA), as amended, are applicable to storm water discharges regulated by this Permit.

8. This action to adopt a NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.), in accordance with Section 13389 of the California Water Code.

9. The State Water Board adopted the California Ocean Plan on March 22, 1990, and the California Inland Surface Water Plan and Enclosed Bay and Estuaries Plan on April 11, 1991. In addition, the Regional Boards have adopted and the State Water Board has approved Water Quality Control Plans (Basin Plans).

3. Storm water discharges shall not cause or threaten to cause pollution, contamination, or nuisance.

4. Storm water discharges regulated by this Permit shall not contain a hazardous substance equal to or in excess of a reportable quantity listed in 40 CFR Part 117 and/or 40 CFR Part 302.

B. RECEIVING WATER LIMITATIONS:

1. Storm water discharges to any surface or ground water shall not adversely impact human health or the environment.

2. Storm water discharges shall not cause or contribute to a violation of any applicable water quality standards contained in the California Ocean Plan, Inland Surface Water Plan, Enclosed Bays and Estuaries Plan, or the applicable Regional Boards' Basin Plan.

C. PROVISIONS

1. All dischargers must submit an NOI and appropriate fee for each facility covered by this Permit in accordance with Attachment 3: Notice of Intent--General Instructions.

2. All dischargers must develop and implement a Storm Water Pollution Prevention Plan for each facility covered by this Permit in accordance with Section A: Storm Water Pollution Prevention Plan.

3. All dischargers must develop and implement a Monitoring and Reporting Program Plan for each facility covered by this Permit in accordance with Section B: Monitoring Program and Reporting Requirements.

4. Feedlots as defined in 40 CFR Part 412 that are in full compliance with Section 2560 to Section 2565, Title 23, California Code of Regulations (Chapter 15) will be in compliance with all effluent limitations and prohibitions contained in this Permit. Feedlots must comply with any Regional Board WDR or NPDES permit regulating their storm water discharge. Feedlots that comply with Chapter 15, however, must perform monitoring in compliance with the requirements of Provision 4(a) and 13, Section B: Monitoring Program and Requirements.

5. All dischargers must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other water courses under their jurisdiction, including applicable requirements in municipal storm water management programs developed to comply with NPDES permits issued by the Regional Boards to local agencies.

6. All dischargers must comply with the standard provisions and reporting requirements for each facility covered by this Permit contained in Section C: Standard Provisions.

7. This Permit will expire on November 19, 1996. Upon reissuance of the NPDES permit by the State Water Board, the facilities subject to this reissued permit are required to file a revised NOI.

D. REGIONAL BOARD AUTHORITIES

1. Following adoption of this Permit, Regional Boards shall:

(a) Implement the provisions of this Permit, including, but not limited to, reviewing storm water pollution prevention plans, reviewing group monitoring plans, reviewing monitoring reports, conducting compliance inspections, and taking enforcement actions.

Section A: STORM WATER POLLUTION PREVENTION PLAN

1. A storm water pollution prevention plan (SWPPP) shall be developed and implemented for each facility covered by this Permit. The SWPPP shall be designed to comply with BAT/BCT and be certified in accordance with the signatory requirements of Standard Provision C.9. For existing facilities (and new facilities beginning operations before October 1, 1992), a SWPPP shall be developed and implemented no later than October 1, 1992. For facilities beginning operations after October 1, 1992, a SWPPP shall be developed prior to submitting a NOI and implemented when the facility begins operations. The SWPPP shall be retained onsite and made available upon request of a representative of the Regional Board and/or local storm water management agency (local agency) which receives the storm water discharge.

2. The Regional Board and/or local agency may notify the discharger when the SWPPP does not meet one or more of the minimum requirements of this Section. Within 30 days of notice, the discharger shall submit a time schedule that meets the minimum requirements of this section to the Regional Board and/or local agency that requested the changes. After making the required changes, the discharger shall provide written certification that the changes have been made.

3. The discharger shall amend the SWPPP whenever there is a change in construction, operation, or maintenance which may effect the discharge of significant quantities of pollutants to surface water, ground waters, or the local agency's storm drain system. The SWPPP should also be amended if it is in violation of any conditions of this Permit, or has not achieved the general objectives of controlling pollutants in storm water discharges.

4. The SWPPP shall provide a description of potential sources which may be expected to add significant quantities of pollutants to storm water discharges, or which may result in non-storm water discharges from the facility. The SWPPP shall include, at a minimum, the following items:

   a. A topographic map (or other map if a topographic map is unavailable), extending one-quarter mile beyond the property boundaries of the facility, showing: the facility, surface water bodies (including springs and wells), and the discharge point where the facility's storm water discharges to a municipal storm drain system or other water body. The requirements of this paragraph may be included in the site map required under the following paragraph if appropriate.

   b. A site map showing:

      i. The storm water conveyance and discharge structures;

      ii. An outline of the storm water drainage areas for each storm water discharge point;

      iii. Paved areas and buildings;

      iv. Areas of pollutant contact, actual or potential;

      v. Location of existing storm water structural control measures (i.e., berms, coverings, etc.);

      vi. Surface water locations;

      vii. Areas of existing and potential soil erosion;

      viii. Vehicle service areas.

d. Spill Prevention and Response. Identification of areas where significant materials can spill into or otherwise enter the storm water conveyance systems and their accompanying drainage points. Specific material handling procedures, storage requirements, clean up equipment and procedures should be identified, as appropriate. Internal reporting procedures for spills of significant materials shall be established.

e. Storm Water Management Practices. Storm water management practices are practices other than those which control the source of pollutants. They include measures such as installing oil and grit separators, diverting storm water into retention basins, etc. Based on assessment of the potential of various sources to contribute pollutants to storm water discharges in significant quantities, additional storm water management practices to remove pollutants from storm water discharge shall be implemented.

f. Sediment and Erosion Prevention. The SWPPP shall identify measures to limit erosion around the storm water drainage and discharge points.

g. Employee Training. Employee training programs shall inform all personnel responsible for implementing the SWPPP. Training should address spill response, good housekeeping, and material management practices. Periodic dates for training should be identified.

h. Inspections. All inspections shall be done by trained personnel. A tracking or follow-up procedure shall be used to ensure appropriate response has been taken in response to an inspection. Inspections and maintenance activities shall be documented and recorded. Inspection records shall be retained for five years.

6. Non-storm water discharges to storm water conveyance systems shall be eliminated prior to implementation of this SWPPP. The SWPPP shall include a certification that non-storm water discharges have been eliminated and a description of any tests for the presence of non-storm water discharges, the methods used, the dates of the testing, and any onsite drainage points that were observed during the testing. Such certification may not always be feasible if the discharger a) must make significant structural changes to eliminate the discharge of non-storm water discharges to the industrial storm water conveyance system, or b) has applied for, but not yet received, an NPDES permit for the non-storm water discharges. In such cases, the discharger must notify the appropriate Regional Board prior to implementation of the SWPPP that non-storm water discharges cannot be eliminated. The notification shall include justification for a time extension and a schedule, subject to modification by the Regional Board, indicating when non-storm water discharges will be eliminated. In no case shall the elimination of non-storm water discharges exceed three years from the NOI submittal date.

7. An annual facility inspection shall be conducted to verify that all elements of the SWPPP (i.e., site map, potential pollutant sources, structural and non-structural controls to reduce pollutants in industrial storm water discharge, etc.) are accurate. Observations that require a response (and the appropriate response to the observation) shall be retained as part of the Plan.

8. This SWPPP may incorporate, by reference, the appropriate elements of other program requirements (i.e., Spill Prevention Control and Countermeasures (SPCC) plans under Section 311 of the CWA, Best Management Programs under 40 CFR '25.100, etc.).

9. The SWPPP is considered a report that shall be available to the public under Section 308(b) of the CWA.

10. The SWPPP shall include the signature and title of the person responsible for preparation of the SWPPP and include the date of initial preparation and each amendment, thereto.

Section B: MONITORING PROGRAM AND REPORTING REQUIREMENTS

1. A monitoring program shall be developed and implemented for each facility covered by this Permit. It shall be certified in accordance with the signatory requirements contained in Standard Provision C.9. For existing facilities (and new facilities beginning operations before October 1, 1992), a monitoring program must be developed and implemented no later than October 1, 1992. For facilities beginning operations after October 1, 1992, a monitoring program shall be developed prior to submittal of the NOI, and implemented when the facility begins operations. A description of the monitoring program shall be retained onsite and made available upon request of a representative of the Regional Board and/or local agency which receives the storm water discharge.

   The monitoring program shall be developed and amended, when necessary, to meet the following objectives:

   a. To monitor the quality of storm water discharges relative to Discharge Prohibitions, Effluent Limitations, and Receiving Water Limitations.

   b. To aid in the implementation of the Storm Water Pollution Prevention Plan.

   c. To measure the effectiveness of best management practices (BMPs) in removing pollutants in storm water discharge.

2. The Regional Board and/or local agency may notify the discharger when the monitoring program does not meet one or more of the minimum requirements of this Section. Within 30 days of notice, the discharger shall submit a time schedule to the Regional Board and/or local agency for amending the monitoring program to meet the minimum requirements. After making the required changes, the discharger shall provide written certification to the Regional Board and/or local agency that the changes have been made.

3. The monitoring program shall contain:

   a. Rationale for selection of monitoring methods.

   b. Analytical methods to detect pollutants in storm water discharge.

   c. Sampling methods, sampling locations, and frequency of monitoring.

   d. A quality assurance/quality control program to assure that

      i. All elements of the monitoring program are conducted; and
      ii. All monitoring is conducted by trained personnel.

   e. Procedures and schedules by which the effectiveness of the monitoring program in achieving the objectives above can be evaluated.

4. The monitoring program shall document the elimination or reduction of specific pollutants, resulting from the implementation of BMPs. During the wet season (October 1 to April 30), all dischargers shall:

   a. Conduct visual observations of the storm water discharge locations on at least one storm event per month that produces significant storm water discharge[1/] to observe the presence of floating and

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1/ "Significant storm water discharge" is a continuous discharge of storm water for a minimum of one hour, or intermittent discharge of storm water for a minimum of three hours in a 12-hour period.

8. Samples shall be analyzed for toxic chemicals and other pollutants as identified in 4(c)(ii) and 7(a)(ii) or 7(b)(ii) for at least two consecutive sampling events. As an alternative to analyzing for these toxic chemicals and other pollutants, analysis for acute toxicity may be conducted. Acute toxicity 96-hour static renewal tests shall be conducted with fathead minnows in 100 percent storm water (no dilution). If toxic chemicals or other pollutants are not detected in significant quantities in the grab and composite sample after two consecutive sampling events, or two consecutive sampling events with no acute toxicity[2/], the facility may eliminate that toxic chemical or pollutant from future sampling events.

9. Sampling shall be a combination of a grab sample (to measure first-flush water quality) and a composite sample (to provide an estimate of the average runoff water quality) from a storm event that produces significant storm water discharge that is preceded by at least 72 hours of dry weather and in accordance with the following guidelines:

   a. The grab sample(s) shall be taken during the first thirty minutes of the discharge. If the collection of the grab sample(s) during the first 30 minutes is impracticable, grab sample(s) can be taken during the first hour of the discharge, and the discharger shall explain in the annual monitoring report why the grab sample(s) could not be taken in the first 30 minutes.

   b. The composite sample shall be either flow-weighted[3/] or time-weighted[4/]. Composite samples may be taken with a continuous sampler or a combination of a minimum of three grab samples taken in each hour of discharge or for the first three hours of the discharge, with each grab sample being separated by a minimum period of 15 minutes.

   c. Only grab samples may be used for the determination of pH and oil and grease.

   d. Composite sampling is not required for discharges from holding ponds or other impoundments with a retention period greater than 24 hours.

10. When a discharger is unable to collect any of the required samples due to adverse climatic conditions (drought, extended freeze, dangerous weather conditions, etc.), a description of why the samples could not be collected, including documentation of the event, must be submitted along with the annual monitoring report.

11. All sampling and sample preservation shall be in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association). All monitoring instruments and equipment shall be calibrated and maintained in accordance with manufacturers'

2/ "no acute toxicity" means no significant difference between the control mortality and sample mortality at 95 percent confidence interval using the "t-test" statistical method described in Appendix H of Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA-600/4-89/001 March 1989 and subsequent editions).

3/ "Flow-weighted composite sample" means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.

4/ "Time-weighted composite" means a composite sample consisting of a mixture of equal volume aliquots collected at a constant time.

c. The entity or the local agency must have the authority to levy fees against the participating dischargers in the group or be able to otherwise pay for the implementation of the group monitoring plan.

d. The entity or the local agency is responsible for:

i. Development and implementation of the group monitoring plan;
ii. Evaluation and reporting of group monitoring data;
iii. Recommending appropriate BMPs to reduce pollutants in storm water discharges;
iv. Submitting a group monitoring plan to the appropriate Regional Board and local agency no later than 60 days prior to the beginning of the wet season, and revising the group monitoring plan as instructed by the Regional Board or local agency.

e. The group monitoring plan shall:

i. Identify the participants of the group by name and location;

ii. Include a narrative description summarizing the industrial activities of participants of the group and explain why the participants, as a whole, are sufficiently similar to be covered by a group monitoring plan;

iii. Include a list of significant materials stored or exposed to storm water and material management practices currently employed to diminish contact by these materials with storm water discharge;

iv. Identify a minimum of twenty percent of the dischargers (minimum of four dischargers for groups of 20 dischargers or less) participating in the group, and describe why the facilities selected to perform sampling and analysis are representative of the group as a whole in terms of processes used or materials managed;

v. Contain all items specified in Section B(3) above.

f. All group monitoring must comply with the applicable requirements of Section B(6), B(7)(b), and B(8-13) above.

h. Unless otherwise instructed by the Regional Board, the group monitoring plan shall be implemented at the beginning of the wet season.

i. Upon approval of the State Water Board Executive Director, a group may perform representative monitoring which includes dischargers within the boundaries of more than one Regional Board area. Any such request for approval shall include an explanation of the need to include dischargers within the boundaries of more than one Regional Board area into a single group monitoring plan.

Section C: STANDARD PROVISIONS

1. Duty to Comply

The discharger must comply with all of the conditions of this Permit. Any permit noncompliance constitutes a violation of the Clean Water Act and the Porter-Cologne Water Quality Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Permit has not yet been modified to incorporate the requirement.

2. Permit Actions

This Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the discharger for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this Permit, this Permit shall be modified, or revoked and reissued to conform to the toxic effluent standard or prohibition, and the discharger so notified.

3. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

4. Duty to Mitigate

The discharger shall take all responsible steps to minimize or prevent any discharge in violation of this Permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. Proper Operation and Maintenance

The discharger shall at all times properly operate and maintain any facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with the conditions of this Permit and with the requirements of storm water pollution prevention plans. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance may require the operation of backup or auxiliary facilities or similar systems, installed by a discharger when necessary to achieve compliance with the conditions of this Permit.

6. Property Rights

This Permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.

(3) If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be attached to the Storm Water Pollution Prevention Plan prior to submittal of any reports, certifications, or information signed by the authorized representative.

10. Certification

Any person signing documents under Provision 9 shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

11. Reporting Requirements

a. Planned changes: The discharger shall give notice to the Regional Board and local storm water management agency as soon as possible of any planned physical alteration or additions to the permitted facility. Notice is required under this provision only when the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged.

b. Anticipated noncompliance: The discharger will give advance notice to the Regional Board and local storm water management agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

c. Compliance schedules: Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than 14 days following each schedule date.

d. Noncompliance reporting: The discharger shall report any noncompliance at the time monitoring reports are submitted. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

12. Oil and Hazardous Substance Liability

Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the discharger from any responsibilities, liabilities, or penalties to which the discharger is or may be subject under Section 311 of the CWA.

13. Severability

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit shall not be affected thereby.

14. Reopener Clause

If there is evidence indicating potential or actual impacts on water quality due to any storm water discharge associated with industrial activity covered by this Permit, the owner or operator of such discharge may be required to obtain an individual permit or an alternative general permit, or this Permit may be modified to include different limitations and/or requirements.

15. Penalties for Violations of Permit Conditions.

a. Section 309 of the CWA provides significant penalties for any person who violates a permit condition implementing Sections 301, 302, 306, 307 308, 318, or 405 of the CWA, or any permit condition or limitation implementing any such section in a permit issued under Section 402. Any person who violates any permit condition of this permit is subject to a civil penalty not to exceed $25,000 per day of such violation, as well as any other appropriate sanction provided by Section 309 of the CWA.

b. The Porter-Cologne Water Quality Control Act also provides for civil and criminal penalties, in some cases greater than those under the CWA.

16. Availability

A copy of this Permit shall be maintained at the discharge facility and be available at all times to operating personnel.

17. Transfers

This Permit is not transferable to any person. A new owner or operator of an existing facility must submit a NOI in accordance with the requirements of this Permit to be authorized to discharge under this general Permit.

18. Continuation of Expired Permit

This Permit continues in force and effect until a new general permit is issued or the State Water Board rescinds the Permit. Only those dischargers authorized to discharge under the expiring Permit are covered by the continued Permit.

7. Duty to Provide Information

The discharger shall furnish the Regional Board, State Water Board, EPA, or local storm water management agency within a reasonable time specified by the agencies, any requested information to determine compliance with this Permit. The discharger shall also furnish, upon request, copies of records required to be kept by this Permit.

8. Inspection and Entry

The discharger shall allow the Regional Board, State Water Board, EPA, and local storm water management agency upon the presentation of credentials and other documents as may be required by law, to:

a. Enter upon the discharger's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this Permit;

b. Have access to and copy at reasonable times, any records that must be kept under the conditions of this Permit; and

c. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment) that are related to or may impact storm water discharge.

d. Sample or monitor at reasonable times for the purpose of ensuring permit compliance.

9. Signatory Requirements

a. All Notices of Intent submitted to the State Water Board shall be signed as follows:

(1) For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or (2) the manager of the facility if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. The principal executive officer of a Federal agency includes the chief executive officer of the agency, or the senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g. Regional Administrators of EPA).

b. All reports, certification, or other information required by the Permit or requested by the Regional Board, State Water Board, EPA, or local storm water management agency shall be signed by a person described above or by a duly authorized representative. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described above and retained as part of the Storm Water Pollution Prevention Plan.

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specifications to ensure accurate measurements. All analyses must be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this permit or by the Regional Board. All metals shall be reported as total metals. Toxicity tests shall be conducted in accordance with the latest revisions of Methods for Measuring the Acute Toxicity of Effluent to Freshwater and Marine Organisms, EPA-600/4-85-013 (March 1985). All analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. Dischargers may conduct their own laboratory analysis only if the discharger has sufficient capability (qualified employees, laboratory equipment, etc.) to adequately perform the test procedures.

12. Records of all storm water monitoring information and copies of all reports required by this Permit shall be retained for a period of at least five years from the date of the sample, observation, measurement, or report.

These records shall include:

a. The date, exact place, and time of sampling, observations, and/or measurements;

b. The individual(s) who performed the sampling, observations, and/or measurements;

c. Flow measurements or estimates and all standard observations;

d. The date(s) analyses were performed and the time(s) analyses were initiated;

e. The individual(s) who performed the analyses;

f. The analytical techniques or methods used and the results of such analyses;

g. Quality assurance/quality control results;

h. Non-storm water discharge records (see Section B-5);

i. All calibration and maintenance records of instruments used; and

j. All original strip chart recordings for continuous monitoring instrumentation.

13. All storm water monitoring results shall be reported by July 1 of each year to the Executive Officer of the Regional Board of the Region in which the facility is located and to the local agency (if requested). The report shall include copies or summaries of the Monitoring Record of 12.a. through h. listed above. The report shall be signed and certified in accordance with Standard Provisions 9 and 10 of Section C of this Permit. The first report will be due July 1, 1993.

14. Group Monitoring: Group monitoring may be done in accordance with the following requirements:

a. A group monitoring plan may be designed and implemented by an entity representing a similar group of dischargers regulated by this Permit or by a local agency which holds a NPDES permit for a municipal separate storm sewer system. All participants in a group monitoring plan must discharge storm water within the boundaries of a single Regional Board.

b. A minimum of twenty percent of the dischargers participating in a group (minimum of four dischargers for groups of 20 dischargers or less) must be monitored. The entity or the local agency shall select the facilities that best represent the quality of the group's storm water discharge.

suspended materials, oil and grease, discolorations, turbidity, and odor, etc. Feedlot dischargers that are in compliance with Section 2560 to Section 2565, Title 23, California Code of Regulations shall conduct monthly inspections of their containment facilities to detect leaks and ensure maintenance of adequate freeboard.

b. Measure (or estimate) the total volume of storm water discharge from at least two storm events that produce significant storm water discharge, including the first such storm event of the wet season.

c. Collect and analyze samples of storm water discharge from at least two storm events that produce significant storm water discharge, including the first such storm event of the wet season for:

i. Any pollutant described in 40 CFR Subchapter N for which the discharger is required to monitor;

ii. SARA, Title III, Section 313 toxic chemicals that have been released into storm water as reported on U.S. EPA Form R (40 CFR 372) after November 19, 1988;

iii. Monitoring parameters in accordance with Section B(7) below.

5. Testing for the presence of non-storm water discharges shall be conducted no less than twice during the dry season (May to September) at all storm water discharge locations. Tests may include visual observations of flows, stains, sludges, odors, and other abnormal conditions; dye tests; TV line surveys; and/or analysis and validation of accurate piping schematics. Records shall be maintained of the description of the method used, date of testing, locations observed, and test results.

6. Samples shall be collected from all locations where storm water is discharged. Samples must represent the quality and quantity of storm water discharged from the facility. If a facility discharges storm water at multiple locations, the discharger may sample a reduced number of locations if it is established and documented in the monitoring program that storm water discharges from different locations are substantially identical.

7. The monitoring program shall include analysis of parameters according to the following two alternatives:

a. Individual Monitoring

Dischargers not participating in group monitoring must collect and analyze samples for:

i. pH, total suspended solids (TSS), specific conductance, and total organic carbon (TOC);

ii. Toxic chemicals and other pollutants that have a reasonable potential to be present in storm water discharge in significant quantities.

b. Group Monitoring

Under the group monitoring alternative (see B(14)), only selected dischargers are chosen to represent the group. The parameters at these facilities shall be:

i. Oil and grease, pH, specific conductance, TOC, five-day biochemical oxygen demand (BOD_5), chemical oxygen demand (COD), TSS, total phosphorus, total kjeldahl nitrogen, and nitrate plus nitrite nitrogen.

ii. Toxic chemicals and other pollutants that have a reasonable potential to be present in storm water discharge in significant quantities.

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c. A narrative description of the following:

i. Significant materials that have been treated, stored, disposed, spilled, or leaked in significant quantities in storm water discharge after November 19, 1988;

ii. Materials, equipment, and vehicle management practices employed to minimize contact of significant materials with storm water discharge;

iii. Material loading, unloading, and access areas;

iv. Existing structural and non-structural control measures (if any) to reduce pollutants in storm water discharge;

v. Industrial storm water discharge treatment facilities (if any);

vi. Methods of onsite storage and disposal of significant materials;

vii. Outdoor storage, manufacturing, and processing activities including activities that generate significant quantities of dust or particulates.

d. A list of pollutants that have a reasonable potential to be present in storm water discharge in significant quantities, and an estimate of the annual quantities of these pollutants in storm water discharge.

e. An estimate of the size of the facility (in acres or square feet), and the percent of the facility that has impervious areas (i.e., pavement, buildings, etc.).

f. A list of significant spills or leaks of toxic or hazardous pollutants to storm water that have occurred after November 19, 1988. This shall include:

i. Toxic chemicals (listed in 40 CFR 372) that have been discharged to storm water as reported on EPA Form R;

ii. Oil or hazardous substances in excess of reportable quantities (see 40 CFR 110, 117 or 302).

g. A summary of existing sampling data (if any) describing pollutants in storm water discharge.

The SWPPP shall describe the storm water management controls appropriate for the facility. The appropriate controls shall reflect identified potential sources of pollutants at the facility. The description of the storm water management controls shall include:

a. Storm Water Pollution Prevention Personnel. Identify specific individuals (and job titles) who are responsible for developing, implementing, and revising the Plan.

b. Preventive Maintenance. Preventive maintenance involves inspection and maintenance of storm water conveyance system devices (i.e., oil/water separators, catch basins, etc.) and inspection and testing of plant equipment and systems that could fail and result in discharges of pollutants to storm water.

c. Good Housekeeping. Good housekeeping requires the maintenance of clean, orderly facility areas that discharge storm water. Material handling areas shall be inspected and cleaned to reduce the potential for pollutants to enter the storm water conveyance system.

(b) Issue permits as they deem appropriate to individual dischargers, categories of dischargers, or dischargers in a geographic area. Upon issuance of such permits by a Regional Board, the affected dischargers shall no longer be regulated by this Permit. The new permits may address additional storm water pollution prevention plan requirements, more stringent effluent limitations, or additional monitoring and reporting program requirements.

2. Regional Boards may provide guidance to dischargers on Storm Water Pollution Prevention Plan and Monitoring Program implementation.

CERTIFICATION

The undersigned, Administrative Assistant to the State Water Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on November 19, 1991.

AYE: W. Don Maughan
Edwin H. Finster
Eliseo M. Samaniego
John Caffrey

NO: None

ABSENT: None

ABSTAIN: None

Maureen Marché
Administrative Assistant to the Board

Dischargers regulated by this Permit must comply with the water quality standards in these Plans, and subsequent amendments thereto. The State Water Board shall, by April 1996, determine what further actions are appropriate to ensure that discharges subject to this Permit are in compliance with the numerical objectives in the Inland Surface Water Plan and the Enclosed Bays and Estuaries Plan.

10. Federal Regulations (40 CFR Subchapter N) establish numeric effluent limitations for storm water discharges from facilities in ten industrial categories.

11. For facilities which do not have established numeric effluent limitations for storm water discharges in 40 CFR Subchapter N, it is not feasible at this time to establish numeric effluent limitations. This is due to the large number of dischargers and the complex nature of storm water discharges.

12. Implementation of the provisions of this Permit constitutes compliance with BAT/BCT requirements, and with requirements to achieve water quality standards.

13. Best Management Practices (BMPs) to control and abate the discharge of pollutants in storm water discharges are authorized where numeric effluent limits are infeasible and the BMPs are reasonably necessary to achieve compliance with effluent limitations or water quality standards.

14. Following adoption of this Permit, the Regional Boards shall enforce the provisions of this Permit including the monitoring and reporting requirements. Attachment 2 contains the addresses and telephone numbers of each Regional Board office.

15. Following public notice in accordance with State and Federal law and regulations, the State Water Board, in a public hearing held September 3, 1991, heard, considered, and responded to all comments pertaining to this Permit.

16. This Order is a NPDES permit in compliance with Section 402 of the Clean Water Act and shall take effect upon adoption by the State Water Board.

IT IS HEREBY ORDERED that all dischargers that file a NOI indicating their intention to be regulated under the provisions of this Permit shall comply with the following:

A. DISCHARGE PROHIBITIONS:

1. Discharges of material other than storm water, which are not otherwise regulated by a NPDES permit, to a storm sewer system or waters of the nation are prohibited.

2. Storm water discharges for those facilities listed in Attachment 1 of this Permit as "Facilities Subject to Storm Water Effluent Guideline Limitations" shall not exceed the numeric effluent limitations as specified in Federal Regulations (40 CFR Subchapter N). Dischargers subject to those regulations who do not have or are unable to obtain copies of the pertinent regulations should contact the:

State Water Resources Control Board
Division of Water Quality
P.O. Box 1977
Sacramento, CA 95812-1977
Attn: Storm Water Permitting Section

Appendix C

JMM James M. Montgomery
Consulting Engineers, Inc.

APPENDIX C

CHECKLIST OF REQUIRED ITEMS IN AN SWPPP

CHECKLIST OF REQUIRED ITEMS IN AN SWPPP

FACILITY DESCRIPTION

- ☐ A topographic map, extending one-quarter mile beyond the property boundaries of the facility with the following features labeled: (these requirements may be included on any of the maps)
  - ☐ The facility.
  - ☐ Surface water bodies.
  - ☐ Discharge points where the facility's stormwater discharges to a municipal storm drain system or other water body.
- ☐ A site map with the following features labeled: (these requirements may be included on any of the maps)
  - ☐ Stormwater conveyance system.
  - ☐ Outline of the stormwater drainage areas for each stormwater discharge point.
  - ☐ Paved areas and buildings.
  - ☐ Areas of pollutant contact, actual or potential.
  - ☐ Location of existing stormwater structural control measures.
  - ☐ Areas of existing and potential soil erosion.
  - ☐ Vehicle service areas.
- ☐ An estimate of the size of the facility (acres or sq. ft.), and the percent of the facility that has impervious areas (i.e., pavement, buildings, tanks).
- ☐ Description of material loading, unloading processes and access areas.
- ☐ Description of outdoor storage, manufacturing, and processing activities including activities that generate significant quantities of dust or particulates.
- ☐ Description of industrial stormwater discharge treatment facilities (if any).
- ☐ Identification of areas where significant materials can spill into or otherwise enter the stormwater conveyance system and their accompanying drainage points.
- ☐ A summary of existing sampling data (if any) describing pollutants in stormwater discharge.

MATERIAL HANDLING AT FACILITY

- ☐ Materials inventory.
- ☐ Assessment of potential pollution sources which may be expected to add significant quantities of pollutants to stormwater discharges, or which may result in non-stormwater discharges from the facility.
- ☐ A list of pollutants that have a reasonable potential to be present in stormwater discharge in significant quantities, and an estimate of the annual quantities of these pollutants in stormwater discharge.
- ☐ A list of significant spills or leaks of toxic or hazardous pollutants to stormwater that have occurred after November 19, 1988.
- ☐ Spill prevention and response procedures including specific material handling procedures, storage requirements, and clean up equipment procedures.
- ☐ Methods of on-site storage and disposal of significant materials.

CHECKLIST OF REQUIRED ITEMS IN AN SWPPP

MANAGEMENT CONTROL

- ☐ Best Management Practices (describing stormwater management controls)
  - ☐ Preventive maintenance of stormwater conveyance system devices.
  - ☐ Employee training addressing spill response, good housekeeping, and material management practices. Periodic dates for training should be identified.
  - ☐ Periodic facility inspections done by trained personnel.
  - ☐ Annual facility inspection to verify that all elements of the SWPPP are accurate.
  - ☐ Good housekeeping requiring clean, orderly facility areas where stormwater run-on/runoff exists and material handling areas.
  - ☐ Stormwater practices other than those which control the source of pollutants (i.e. installing oil and grit separators, diverting stormwater into retention basins, etc. based on assessment of potential pollutants).
  - ☐ Materials, equipment, and management practices employed to minimize contact of significant materials with stormwater discharge.
  - ☐ Sediment and erosion prevention identifying measures to limit erosion around the stormwater drainage and discharge points.
- ☐ Existing structural and non-structural control measures to reduce pollutants in stormwater discharge (if any).
- ☐ General stormwater management practices.

ADMINISTRATIVE PROCEDURES

- ☐ Identify specific individuals (and job titles) who are responsible for developing, implementing, and revising the Plan.
- ☐ Signature and title of the person responsible for preparation of the SWPPP and include the date of initial preparation and each amendment, thereto.
- ☐ Record keeping
  - ☐ Internal reporting procedures for spills of significant materials.
  - ☐ Inspection records, both periodic and yearly (retained for five years).
  - ☐ Follow-up procedures for response to inspections.
  - ☐ Certification that non-stormwater discharges to the stormwater conveyance system or body of water have been eliminated and a description of any tests for the presence of non-stormwater discharges, the methods used, the dates of the testing, and any on-site drainage points that were observed during the testing. If non-stormwater discharges cannot be eliminated, the Regional Board must be notified including justification for a time extension and a schedule, indicating when non-stormwater discharges will be eliminated.

Appendix D

JMM James M. Montgomery
Consulting Engineers, Inc.

APPENDIX D

CERTIFICATION OF PERSONNEL-IN CHARGE

CERTIFICATION FORM

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature _____

Name _____

Title _____

Date _____

CERTIFICATION

I hereby certify that I am familiar with the provisions of this SWPPP and I am in full knowledge of the rights and responsibilities of being a member of the Pollution Prevention Committee.

Signature _____

Committee Member Name _____

Title _____

Date _____

Signature _____

Committee Member Name _____

Title _____

Date _____

Signature _____

Committee Member Name _____

Title _____

Date _____

RECORD KEEPER CERTIFICATION FORM

Upon being assigned the position of record keeper by the Pollution Prevention Committee, I hereby certify that I am familiar with the provisions of this SWPPP and I am in full knowledge of the rights and responsibilities of being the SWPPP record keeper.

Signature _____

Name _____

Title _____

Date _____

NON-STORMWATER DISCHARGE CERTIFICATION FORM

I certify under penalty of law that all non-stormwater discharges to any stormwater conveyance system or body of water have been eliminated and a description of any tests for the presence of non-stormwater discharges, the methods used, the dates of the testing, and any on-site drainage points that were observed during the testing are recorded below and are correct to the best of my knowledge. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Discription of non-stormwater discharge testing methods including dates of the testing and any on-site drainage points that were observed during the testing:

_____

_____

_____

_____

_____

_____

_____

_____

Signature _____

Name _____

Title _____

Date _____

Appendix E

APPENDIX E

MISCELLANEOUS RECORD KEEPING FORMS

LIST OF QUALIFIED FACILITY INSPECTORS

The following is a list of the qualified facility inspectors as chosen by the Pollution Prevention Committee. The list includes the name and a date of their latest training session for each inspector.

Inspector Name	Date of Latest Training	Inspector Signature

PLAN REVIEW FORM

A thorough review of the SWPPP and Monitoring Program was performed and any necessary revisions were made or currently being made.

Date of Review	Signature of Person Reviewing the Plans	Second Signature of Person Reviewing the Plans

FACILITY INSPECTION LOG

Facility Location: _____

DESCRIPTION	CONDITION (Good, Fair, Poor) G	F	P	COMMENTS/NOTES
Storm Conveyance System				
Catchment Basins	☐	☐	☐	
Erosion of Outfall Embankment	☐	☐	☐	
Outfalls	☐	☐	☐	
Wastewater/Stormwater Treatment				
Effluent Monitoring Instrumentation	☐	☐	☐	
Treatment Area	☐	☐	☐	
Hazardous Materials Storage Area	☐	☐	☐	
Sludge Storage Area	☐	☐	☐	
Containment Berms, Walls, and Piping	☐	☐	☐	
Containment Sumps	☐	☐	☐	
Containment Drainage System	☐	☐	☐	
Storage Tanks (Report separately as required)	☐	☐	☐	
Tanks Overfill Shut-off Valves	☐	☐	☐	
Spill Containment Kits				
Physical Condition	☐	☐	☐	
Accessability	☐	☐	☐	

FACILITY INSPECTION LOG (continued)

DESCRIPTION	CONDITION (Good, Fair, Poor) G F P	COMMENTS/NOTES
Hazardous Materials/Waste Storage		
Hazardous Liquid Storage Container	☐ ☐ ☐	
Hazardous Materials Transfer Equipment	☐ ☐ ☐	
Containment Berms, Walls, and Piping	☐ ☐ ☐	
Containment sumps	☐ ☐ ☐	
Containment Drain System	☐ ☐ ☐	
Storage Tank Farm		
Hazardous Materials Storage Tanks	☐ ☐ ☐	
Hazardous Materials Transfer Equipment	☐ ☐ ☐	
Containment Berms, Walls, and Piping	☐ ☐ ☐	
Containment Sumps	☐ ☐ ☐	
Containment Drain System	☐ ☐ ☐	
Tank Valves	☐ ☐ ☐	
Drip Pans	☐ ☐ ☐	

FACILITY INSPECTION LOG (continued)

DESCRIPTION	CONDITION (Good, Fair, Poor) G F P	COMMENTS/NOTES
Shop Name: _____	*(copy as many as needed)*	
Clarifier/Oil-Water Separator	☐ ☐ ☐	
Hazardous Materials Storage Area	☐ ☐ ☐	
Hazardous Materials Containers	☐ ☐ ☐	
Hazardous Waste Storage Area	☐ ☐ ☐	
Hazardous Waste Storage Containers	☐ ☐ ☐	
Containment Berms, Walls, and Piping	☐ ☐ ☐	
Drainage System and Sumps	☐ ☐ ☐	
Equipment Decontamination Area	☐ ☐ ☐	
Solid Waste Dumpsters	☐ ☐ ☐	
Waste Oil Storage Containers	☐ ☐ ☐	
Drip Pans	☐ ☐ ☐	

I certify that the above checked items were thoroughly inspected on the date shown.

Inspector Name: _____ **Inspection Date:** _____

Inspector Signature: _____

Submit this log to the appropriate SWPPP Record Keeping Coordinator Within 1 Week of Inspection.

REVISION FORM

I certify that the following revisions were made to the SWPPP in accordance with the pollution prevention committee. Revision explanations and descriptions have been sent to the SWPPP record keeper.

Revision Number	Date of Change	Signature of Person Entering Change	Signature from Pollution Prevention Committee Member

Appendix F

JMM James M. Montgomery
Consulting Engineers, Inc.

APPENDIX F

DPS 4.50-1: STORAGE AND HANDLING FINISHING MATERIALS AND RELATED ITEMS

DOUGLAS PROCESS STANDARD

MCDONNELL DOUGLAS CORPORATION

DPS 4.50-1
Revision "D"

ISSUE OF 7-21-86
Replaces Revision "B"

STORING AND HANDLING FINISHING MATERIALS AND RELATED ITEMS

1. SCOPE - This Process Standard specifies the Engineering requirements for storing and handling finishing materials and related items. The requirements shall apply wherever those materials are stored pending use, including but not limited to paint stores, manufacturing departments, etc.

2. APPLICABLE DOCUMENTS

DPS 1.152 - Safety Cans & Solvent Dispensers

3. MATERIALS

This section not applicable.

4. REQUIREMENTS

4.1.1 Ambient Temperature Storage - Temperature of the storage area shall not be less than 50°F nor higher than 80°F for more than four months. For short periods, not exceeding four months, the temperature may approach but shall not exceed 100°F. When high temperatures are unavoidable, the stock of materials shall be held to a minimim.

CAUTION: Temperature below 50°F or exceeding 100°F can produce marked degradation of the product, except solvents and thinners.

4.1.2 Low Temperature Storage - When the DPM indicates a material must be stored at a temperature below the ambient temperature, the material shall be stored at the indicated temperature or temperature range to prevent degradation.

4.2 Storage Location

4.2.1 Indoor Storage - Materials shall be stored indoors under cool, clean, and dry conditions. Where possible, the requirement shall include solvents, thinners, and strippers.

4.2.2 Outdoor Storage - Solvents, thinners, and strippers shall be permitted to be stored outdoors, but only under the following conditions:

4.3. (Cont'd)

4.2.2.1 The area shall be shaded and out of direct sunlight.

4.2.2.2 Containers shall be stored with the bung holes in the up position.

4.3 Handling Requirements

4.3.1 All containers shall be properly labeled.

4.3.2 The first-in first-out method of handling shall be used; however, manufacturing dates shall be checked to ensure use of the oldest material first.

4.3.3 A given material from different suppliers shall not be issued on the same requisition.

4.3.4 A given material from different suppliers shall not be intermixed.

5. INSTRUCTIONS/PROCEDURES

5.1 Keep materials and their containers clean and free of contaminants, particularly on the lids around any openings or bungs.

5.2 Do not open any containers having water or dirt on the lid or around any opening, where the water or dust could enter the package containers, or into the transferring container. Remove the contamination before opening.

5.3 Evidence of rust on interior container tops must be referred to Quality Assurance for disposition, before removing the contents.

5.4 Allow materials to warm to the temperature of the using area before mixing and/or using. Generally, 24 to 48 hours is ample time, keeping in mind that larger containers need more time.

5.5 Keeping container covers, lids, caps, etc., securely in place when not in use.

5.6 Return to paint stores all finishing items that are not currently in use or are overstocked.

5.7 Requisitioning Materials for Production Use - Requisition only enough material for the particular application, allowing ample time for delivery.

5.8 Safety Notes

5.8.1 Solvents and coating materials are toxic and flammable. Observe fire, health, and safety precautions to preclude injury to personnel and damage to equipment or facilities.

5.8.2 The Douglas Safety Manual outlines the general safety precautions to be observed in connection with the procedures of this DPS. For detailed instructions, consult Occupational Safety or Fire Services.

6. QUALITY ASSURANCE PROVISIONS

6.1 Process Control - Shall provide surveillance to determine compliance to DPS requirements.

6.2 Inspection - Materials that are or appear to be degraded shall be rejected and processed in accordance with standard practice.

DP:mlw
2299T

M E M O R A N D U M

To: Hazardous Materials Inventory Database Users
From: Ron Fornator C1-Q6C (74-41) 497-5172
Subject: INSTRUCTIONS FOR USING THE HAZ MAT INVENTORY DATABASE

In order to utilize the hazardous materials database you must first put in a request to have your ID added to the list of authorized users. After this has taken place you can access the database via LBVM6. If you are on LBVM6, you do the following to access (see page 3 for expanded instructions):

1. Log onto VM6 as usual (type in VM6 & press "return/enter");
2. Type in ACQ and press enter/return;
3. Press PF1 as instructed;
4. Choose the screen you wish to utilize (1-trade name, 2-DPM/DMS, 3-manufacturer) and type in the corresponding number;
5. Press enter/return;
6. Unless you are authorized to make changes, press PF4 to enter the read only mode. Use update mode only when making changes to the data.
7. Type a trade name, DPM/DMS # or manufacturer name on the header line (depending upon which screen you choose in # 4 above) and press enter/return to search the system. The header line cannot be changed even in the update mode.
8. If you are making changes to the data, you will be asked to verify the new entry before going on to the next screen. You do this by pressing enter/return a second time.
9. Log off by pressing PF12 twice and logging off as usual.

The following code numbers are used in the database:

P/M = Pure or mixture
LSG = Liquid, solid or gas

DOT Hazard:

01 - not regulated
02 - combustible liquid
03 - corrosive
04 - etiologic agent
05 - explosive a
06 - explosive b
07 - explosive c
08 - flammable compressed gas
09 - flammable liquid
10 - flammable solid
11 - hypergolic
12 - irritant
13 - non-flam. compressed gas
14 - organic peroxide
15 - ORM-A
16 - ORM-B
17 - ORM-C
18 - ORM-D
19 - ORM-E
20 - other regulated materials (ORM)
21 - oxidizer
22 - poison compressed gas (poison A)
23 - poison liquid/solid (poison B)
24 - pyrophoric or spontaneous. combust.
25 - radioactive
26 - water reactive

Health Hazard:
- 01 Acute health hazard
- 02 Chronic health hazard
- 03 Fire hazard
- 04 Sudden release of pressure hazard
- 05 Reactive hazard
- RT Listed as Federal Extremely Hazardous Substance
- CA Listed on Calif. Prop. 65 list.

Use Code:

01 additive	18 fabrication	35 preservative
02 adhesive	19 fertilizer	36 process intermed./ in process
03 aerosol	20 finished prod.	37 raw material
04 anesthetic	21 formulation	38 refining
05 bactericide	22 fuel	39 sealer
06 blasting	23 fungicide	40 spraying
07 carrier/process solv.	24 grinding	41 sterilizer
08 catalyst	25 heating	42 storage
09 cleaning	26 herbicide	43 stripper
10 coolant	27 insecticide	44 washing
11 cooling	28 instructional	45 waste
12 distillation	29 lubricant	46 water treatment
13 drilling	30 medical aid/process	47 welding/soldering
14 drying	31 neutralizer	48 well injection
15 emulsifier	32 painting	49 other
16 etching	33 pesticide	
17 experimental	34 plating	

Container code:

UT underground tank	GC glass container
AT aboveground tank	BX box
FC fixed pressurized cylinder	BG bag
PC portable pressurized cylinder (NOT AEROSOLS - See MC	MC metal containers (not drums) (Includes Aerosols)
IT insulated tank (cryogenic incl.)	IM in machinery or process equip.
DR drums or barrels	OT other
CB carboys	

Storage temp:
- 4 ambient temperature (room temp.)
- 5 greater than ambient temp. (oven)
- 6 less than ambient temp. (refrig. or freezer)
- 7 cryogenic conditions

Storage pressure:
- 1 ambient pressure
- 2 greater than ambient pressure (compressed gas) (<u>not</u> aerosol cans)
- 3 less than ambient pressure

/ith the terminal turned on:

1. Type in VM6 and press "enter";
2. Type in L C_____ and press "enter";
3. Type in the password and press "enter";
   (You may have to press enter again at this point) (If the screen says "MORE" in the lower right corner after you press enter, press "clear") (If an X, a question mark and a plus sign appear in the lower right corner (X ?+), press "reset").
4. Type in ACQ and press "enter";
5. When screen (SSCONSC2) appears, press "PF1";
6. When screen (HSWST) appears, press "1, 2 or 3, depending upon which screen you wish to work with, and press enter. If you are entering data from computer printouts, use "1" for the Trade Name screen. If you are searching the system while using the hand-filled-in sheets, you may need to use the DPM/DMS number screen or the Manufacturer screen;
7. Type in the Trade Name of the first item on the sheet exactly as written;
8. If the amount on the printout is not zero:
   a. Use the cursor placement keys and the tab key to position the cursor on the Storage Loc field corresponding to the information on the printout (ex. C1 5 4E);
   b. Enter the new amount right over the old amount and change the units if necessary (ie. change lbs to gal if needed);
   c. Tab to the Avg Month Use field and enter the new amount;
   d. Press the enter key and then press it again to verify;
   e. Type in the next Trade Name and repeat the above procedure;
9. If the amount is 0, you need to delete the location:
   a. Move the cursor to the Storage Loc field as in 8.a. above;
   b. Delete the C location (C1, C5 or C6), the building number and the column number by using the space bar to blank them out;
   c. Tab to the Max Stored field, enter 0 and delete the existing number;
   d. Tab to the Avg Monthly Use field, enter 0 and delete the existing number. (Do not try to delete the other fields as the system will not accept the deletion);
   e. Press enter twice to save the change as in 8.c. above.
10. Log off by pressing PF12 twice and then press Clear. Then type in Logoff.
11. If the terminal remains idle for 1 hour, the system will automatically log you off.

If you are working with the hand-filled-in sheets entitled HAZARDOUS MATERIALS LISTING SYSTEM:

1. Perform steps 1-6 of the previous page;
2. Search the system to find out of the substance is already in. This is done in the following manner:
   a. Type in the Trade Name as written on the sheet;
   b. If this does not bring you to the material, you may have to use the PF7 or PF8 keys to move forward or backward;
   c. If you still have not found the material, type in the trade name differently, or part of the name/numbers given. The system will take you to the closest entry that exists in the system;
   d. You can also search in the DPM/DMS or Manufacturer screens by pressing PF12 from the trade name screen and entering 2 or 3 and pressing "enter";
   e. Type in the DPM and the number or DMS and the number to search the DPM/DMS field;
   f. Search the Manufacturer field in the same manner;
3. If you locate the material, enter the new data:
   a. Position the cursor on the Storage Loc field and enter the new location, building and column number. (The cursor will jump from location and position itself automatically on building number, but you must tab to get to column number.);
   b. The cursor will go to the HOW field; enter the new storage type;
   c. The cursor will go to the TEMP field; enter the new temperature info;
   d. The cursor will go to the PRESS field; enter the new pressure info;
   e. The cursor will go to the MAXIMUM STORED FIELD; enter the new number, tab to the units field and enter the new unit (lbs, gal or cft);
   f. Tab past the WT field and to the AVG MONTHLY USE field and enter the new number and unit;
   g. Press "enter" and then press it again to verify;
4. If you cannot find the substance on the system, put the sheet in the NEEDS MSDS pile;
5. If there is any question as to whether a substance you find on the system is the same as the one on the sheet, ask Ron, Michael or Lisa. If they are not around, put a note on it stating the trade name of the field you found on the system that you think may correspond and put the sheet aside.
6. Log off the system as stated in #10 of the previous page.

HAZARDOUS MATERIALS ANNUAL UPDATE INSTRUCTIONS

You have been given a computer printout of the hazardous materials inventory submitted from your department in 1989. This information has been invaluable to us over the past year and has allowed us to comply with numerous state and federal government environmental regulations. Now it is time to start compiling information for the required annual update. We are relying upon you to do four things: 1. update last year's information; 2. tell us about any new materials you use or those that were not previously reported; 3. delete materials no longer used; 4. report materials which are used during the year but are not presently on site. Please follow the procedures below.

A. UPDATE PROCEDURES

1. Enter the area supervisor's name, dept., mail code and phone number at the top of your printout.

2 Look at the material trade name, manufacturer and DPM/DMS # of the first material on the printout. (The codes in the "Container" column on the printout are listed on page 4, #9 of these instructions.)

3. MATERIALS NO LONGER USED/STORED

   If the hazardous material is no longer used at the listed column number then simply enter 0 in the Maximum Quantity on Site space and the Average Monthly Quantity space.

4. MATERIALS STILL UTILIZED AT THE LISTED LOCATION

   If the material is still utilized:

   a. Fill in the maximum amount of the material you had on site at any one time during the course of 1990. Use only the following units:

      Liquid: Quarts, Pints, Fluid Ounces, Gallons, Liters, Ounces
      Solid : Ounces, Kilograms, Pounds
      Gas : Cubic Feet (not PSI !!)

      DO NOT USE - Rolls, Pieces, Kits, Tubes, Cans, or phrases such as "as required" or "varies".

      The printout will be sent back for clarification and valuable time will be lost if these or other units not approved are used.

   b. Estimate and fill in the average quantity of this material you use or store in one month. Use only the approved units listed in #4 above.

5. SIMILAR MATERIAL FROM DIFFERENT MANUFACTURER

If you use a similar material from a different manufacturer, see the instructions for materials not previously reported (see C below).

6. DIFFERENT LOCATIONS

If you still use a listed material but in a different location, see the instructions for materials not previously reported (see C below).

NOTE: If a trade name on the printout is followed with a letter (e.g. "Acetone A") it means that more than one screen was needed on the computer system to enter data for this chemical. This is true for chemicals used in many locations throughout the plant and for chemicals used in more than one machine at a single column location. If a number that appears to be a fraction follows a trade name [e.g. Waterbased Gray (47X-2) 1/2] this indicates that two pages were required to enter the ingredients in the computer system. This is not part of the trade name.

7. Proceed to the next trade name. When completed, mail all inventory sheets to: Ron Fornator, C1-Q6C, MC 74-41 by Nov. 16. direct all questions to Ron at X75172.

B. DISPOSAL OF MATERIAL NO LONGER USED

If a material is present in your department and it is: 1. out of date; 2. no longer used; 3. material which cannot be used because of contamination or other problems, please arrange for disposal by contacting the plant services trouble board at C1 (33101)

C. For reporting materials not on the printout see the sheet in this packet entitled "INVENTORY FORM INSTRUCTIONS - MATERIALS NOT PREVIOUSLY REPORTED".

SAMPLE

MCDONNELL DOUGLAS
DOUGLAS AIRCRAFT CO.

HAZARDOUS MATERIALS INVENTORY
LOC C6

DATE: 10/22
PAGE: 1592

GRAM ID: HZ89637
ORT NO: HZ89637
T SEQUENCE: LOC,BLDG,COLUMN

G: 2 COLUMN: 2H49

SUPERVISOR: MAIL CODE: PHONE: DEPT:

TRADENAME	MANUFACTURER	DPM/DMS	HOW STRD	MAX ON HAND	AVG USED MNTHLY
515X347	DESOTO	DPM 2232-5	MC		
WATERBASED SEMI GLOSS PG. 1/2	ADVANCED COATINGS & CHEMIAL	DPM 5948	MC		
44B-5 BECKMAN BAKING TEXT 1/2	ADVANCED COATINGS & CHEMICALS	DPM 3626	MC		
WATERBASED SEMI GLOSS PG. 2/2	ADVANCED COATINGS & CHEMIAL	DPM 5948	MC		
5080M BASE COAT	CONTINENTAL COATINGS	DPM 5554	MC		
16-F2-90 (BASE) PG. 1 OF 2	CROWN METRO		MC		
453-2-5/X-304 PG. 1 OF 2	SIKKENS	DPM 5693	MC		
14-F2-10	CROWN METRO		MC		
821T209 A	DESOTO, INC.	DMS 2143	MC		
910-152 A	DESOTO		MC		
822T203 A	DESOTO	DPM 2143A	MC		
821T209	DESOTO	DMS 2143	MC		
821X400 A	DESOTO INC.	DMS 2115	MC		
513X332 PG. 1 OF 2	DESOTO	DPM 5982	MC		
828X309 PG. 1 OF 2	DESOTO	DMS 2115	MC		
828X310	DESOTO	DMS 2115	MC		
513X379 PG. 1 OF 2	DESOTO	DMS 2104	MC		
WALKWAY COATING 342-4	WLS COATINGS		MC		
910X563	DESOTO	DMS 2104	MC		
000-002	DESOTO, INC.	DPM 2232-6	MC		
VINYL COATING	BROLITE INC.	DMS 1824	MC		
822X419	DESOTO	DMS 2115	MC		

INVENTORY FORM INSTRUCTIONS

MATERIALS NOT PREVIOUSLY REPORTED

1 - TRADE NAME: Write down the entire name that is printed on the label and include any product # that is printed on the label. (e.g. Douglas Solvent #64 Cleaner: #1064-14). (For paints, include the color).

2 - CHEMICAL COMMON NAME: Write down any chemical name the product may have and any common name (special name) your department has for this chemical. (e.g. 1,1,1-trichloroethane; "Sol-64").

3 - MATLS PART #: Write down the number assigned by Procurement which is used for purchasing the chemical. (e.g. Procurement Part # 000000000).

4 - MANUFACTURER: Write down the complete name of the company that make this product and the city and state. (e.g. Ardrox, Inc., La Mirada, CA.).

5 - DPM: Write down the DPM, DMS or MMS #. If it does not have one, draw a line. (DPM _____). If it is a DMS or MMS please include the designated initials (e.g. DPM DMS 2283).

6 - L S G: Write down "L" for a liquid, "S" for a solid (e.g. powder) or "G" for a gas.

7 - CHEMICAL USE: Write down all of the following codes which apply; (can be more than one).

01 - Additive
02 - Adhesive
03 - Aerosol
04 - Anesthetic
05 - Bactericide
06 - Blasting
07 - Carrier/processing solvent
08 - Catalyst
09 - Cleaning
10 - Coolant
11 - Cooling
12 - Distillation
13 - Drilling
14 - Drying
15 - Emulsifier
16 - Etching
17 - Experimental
18 - Fabrication
19 - Fertilizer
20 - Finished product
21 - Formulation
22 - Fuel
23 - Fungicide
24 - Grinding
25 - Heating
26 - Herbicide
27 - Insecticide
28 - Instructional
29 - Lubricant
30 - Medical aid or process
31 - Neutralizer
32 - Painting
33 - Pesticide
34 - Plating
35 - Preservative
36 - Process intermediate/in process
37 - Raw material
38 - Refining
39 - Sealer
40 - Spraying
41 - Sterilizer
42 - Storage
43 - Stripper
44 - Washing
45 - Waste
46 - Water treatment
47 - Welding/soldering
48 - Well injection
49 - Other

8 - STORAGE/USE LOCATION: Location (e.g. C1); Building (e.g. 1); Column (e.g. 21C).

9 - STORAGE CONTAINER: Write down one of the following codes:

UT - Underground Tank
AT - Aboveground Tank
FC - Fixed Pressurized Cylinders
PC - Portable Pressurized Cylinders
IT - Insulated Tank (including cryogenics)
DR - Drum(s) or Barrel(s)
CB - Carboy(s)
GC - Glass Container(s)
BX - Box(es)
BG - Bag(s)
MC - Metal Containers (not drums)
IM - In Machinery or Processing Equipment
OT - Other

10- STORAGE TEMP.: Write down one of the following codes:

4 - Ambient temperature (room temp.)
5 - Greater than ambient temp. (oven)
6 - Less that ambient temp. (refrigerator)
7 - Cryogenic conditions (liquid nitrogen or oxygen)

11- STORAGE PRESS.: Write down one of the following codes:

1 - Ambient pressure (room pressure)
2 - Greater that ambient pressure (compressed gas)
3 - Less than ambient pressure

12- MAX. AMOUNT ON SITE AT ANY ONE TIME: ESTIMATE the maximum amount that was present at this location at any one time during the course of this year. Use one of the following units only:

Liquid: Quarts, Pints, Fluid Ounces, Gallons, Liters
Solid : Ounces, Kilograms, Pounds
Gas : Cubic Feet (not PSI !!)

DO NOT USE - Rolls, Pieces, Kits, Tubes, Cans or phrases such as "as required" or "varies".

The inventory sheet will be sent back for clarification and valuable time will be lost if these or other units not approved are used.

13- AVERAGE AMOUNT HANDLED OVER 1 MONTH: ESTIMATE the amount of materials that you expect to handle over the course of a month. Use one of the units listed above in #12.

14- Enter your name, dept., mail code and phone number and the name of your supervisor.

ALL OTHER ITEMS ON THE FORM ARE TO BE LEFT BLANK!!!

WHAT SHOULD THE INVENTORY INCLUDE?

The hazardous materials inventory should include all chemicals and mixtures of chemicals, solid, liquid or gas, in the employees area. Following are some examples of chemical substances which should be included in the inventory:

Adhesive	Disinfectant	Plating Chemical
Acid	Epoxy	Polishing Compound
Alcohol	Fuel	Resin
Asbestos	Grease	Soap
Catalyst	Lubricant	Solvent
Cleaner	Metal Working Coolant	Stripper
Compressed Gas	Oil	Thinner
Cutting Fluid	Paint	Welding Rod
Degreaser	Photographic Chem.	Hazardous Waste

NOTE: Compressed gases includes non-poisonous/non-flammable gas, such as nitrogen or oxygen as well as those which are poisonous or flammable.

It is also VERY important to report materials which are not currently on site in your area but which are present at some time during the year.

There are many more types of hazardous materials. If you are in doubt as to whether something should be reported, include it, and we will make the determination.

NOTE: Do not include process tank contents.

Please try to be as thorough as possible when performing the inventory. Your assistance is greatly appreciated. Thank-you.

Return completed forms to: Ron Fornator, C1-Q6C, mail code 74-41 by Nov. 16. Call Ron at X75172 if you have any questions.

SAMPLE

(1) TRADE NAME: Shell-Sol-BT-66
(2) CHEMICAL NAME: Douglas #1 Solvent
(3) MATL PART NO.:
(4) MANUFACTURER: Shell Oil Co., Wilmington, CA.

P/M: ____ (6) LSG: L

CAS: ____

HEALTH HAZARD: ____

DOT HAZARD: ____

DOT-UN-NA NUMBER:

(5) DPM: DPM 517

(7) USE CODE: 09

C1	BLDG (8)	COL	CONTAINER (9) CODE	TEMP (10)	PRESS. (11)	(12) MAXIMUM STORED NO.	UNITS	(13) AVG MONTHLY USE NO.	UNITS
C6	2	30B	MC	4	1	5	GAL.	4	GAL

(14) Name: _____ Dept.: _____ Mail Code: _____ Phone: _____ Supervisor: _____

(9)
UT - Underground tank
AT - Above ground tank
FC - Fixed pressurized cylinder
PC - Portable pressurized cylinder
IT - Insulated tank (including cryogenics)
DR - Drum
CB - Carboy
GC - Glass container
BX - Box
BG - Bag
MC - Metal containers (including aerosol cans)
IM - In machinery or processing equipment

(10)
Write down one of the following codes:

4 - Ambient temperature (room temp.)
5 - Greater than ambient temperature (oven)
6 - Less than ambient temperature
7 - Cryogenic conditions (example: liquid oxygen or nitrogen)

(11)
Write down one of the following codes:

1 - Ambient pressure (room pressure)
2 - Greater than ambient pressure (compressed gas, NOT aerosols)
3 - Less than ambient pressure

BOE-C6-0072535

Appendix G

APPENDIX G

DAC-105: HAZARDOUS WASTE MANAGEMENT

SPS | STANDARD PROCESS SYSTEM

DAC PROCEDURE

DAC-105
07 Sep 1990

HAZARDOUS WASTE MANAGEMENT

SUPERSEDES:
NEW

A. APPLIES TO:

All DAC organizations

B. PURPOSE:

To provide guidelines, in accordance with applicable government laws and regulations, for collecting and disposing of hazardous waste material generated at Douglas Aircraft Company (DAC). Also, to develop and maintain contingency plans to handle spills and other emergencies involving hazardous waste materials.

C. DEFINITIONS:

1. **Empty Drum:** A container where all material that can be removed has been removed using practices commonly employed, i.e., pouring, pumping, and aspirating, and:
   a. No more than 2.5 centimeters (1 inch) of residue remains on the bottom of the container or inner liner, or,
   b. No more than 3%, by weight, of the total capacity of the container remains in the container or inner liner.
2. **Hazardous Material:** Any material which appears on a list of hazardous materials published or adopted by federal, state, or local government, or a substance or mixture of substances which constitute a hazard to personnel, environment, or property by virtue of any of the following characteristics:
   a. Corrosive
   b. Flammable/combustible
   c. Toxic (in quantities or exposure reasonably expected to be found in the work place)
   d. Explosive
   e. Radioactive
   f. Carcinogenic
   g. Dangerously reactive

h. Cryogenic

i. Strong irritants and sensitizers

j. Compressed gasses

k. Organic peroxides and oxidizers

l. Reproductive toxins.

3. **Hazardous Waste:** Any hazardous material which has served its original, intended use and which is listed or defined as a hazardous waste under applicable statutes and regulations. This includes waste which is flammable, corrosive, reactive, toxic, infectious, or has another hazardous characteristic. Hazardous waste includes material which will be disposed of, recycled, reclaimed, treated on-site or off-site, burned or incinerated; or accumulated and stored prior to disposal, recycling, reclamation, burning, or incineration. Any spilled hazardous material also is a hazardous waste. Partially used hazardous materials or those that have exceeded their shelf life are also hazardous wastes.

4. **Hazardous Waste Container:** Nonstationary containers (e.g., drums, barrels) specifically designated for the collection of hazardous waste.

5. **Hazardous Waste Holding Tank:** A stationary device, designed to contain an accumulation of hazardous waste, which is constructed primarily of materials such as wood, concrete, steel or plastic.

6. **Hazardous Waste Manifest:** The shipping document, originated and signed by the generator of the wastes, which contains the information required by California Department of Health Services and Environmental Protection Agency regulations.

7. **Hazardous Waste Yard:** A secured central area where hazardous waste generated on-site (including that from satellite accumulation areas) is temporarily stored and prepared for shipment.

8. **Satellite Hazardous Waste Accumulation Areas:** Those designated areas where hazardous wastes are generated during manufacturing, laboratory or industrial processes, and where those wastes initially accumulate prior to removal to the hazardous waste yard. This point of accumulation is under the control of local supervision.

EQUIREMENTS:

1. Human Resources (Safety and Environmental Affairs - Environmental Compliance) is responsible for hazardous waste coordination and control at DAC, including provision of hazardous waste holding tanks and hazardous waste containers, specifying restrictions for access to containers and hazardous waste holding tanks, designating and managing the hazardous waste storage areas, maintaining records which identify the location, types, and quantities of hazardous wastes on DAC premises, and for disposing of hazardous wastes in accordance with applicable laws and regulations.

   Hazardous waste containers collected from satellite accumulation areas are temporarily retained in the hazardous waste yard until removed from DAC premises for disposal. The hazardous waste yard will be fenced to prevent unauthorized access to the waste and to minimize the possibility of waste spills escaping from the area. A caution sign will be posted and shall be visible from any direction of access to, and in view of, the enclosure. Wording of the caution signs will be in English, "CAUTION - HAZARDOUS WASTE STORAGE AREA - UNAUTHORIZED PERSONS KEEP OUT"; and in Spanish, "CUIDADO - ZONA DE RESIDOUS PELIGROSOS - PROHIBIDA LA ENTRADA A PERSONAS NO AUTHORIZADOS".

3. Environmental Compliance will obtain the approval of Human Resources (Security & Fire Services - Fire Services) prior to designating hazardous waste yards or satellite accumulation areas.

4. Requests for establishing additional satellite hazardous waste accumulation areas will be made via Form DAC 30-637, Speedimemo, to Environmental Compliance. Request must include location

and column, waste types to be accumulated, anticipated volumes that will be generated per week and the name of the local supervisor responsible for the accumulation area.

5. As frequently as required by government regulations, Environmental Compliance will inspect hazardous waste holding tanks, including verification of tank integrity. If a loss of waste is noted, Environmental Compliance will:

   a. Immediately initiate action to have the tank contents removed.

   b. Secure access to the tank to prohibit further introduction of waste.

   c. Initiate corrective action.

   d. Notify appropriate regulatory agencies, as required.

6. Hazardous waste containers are to be monitored by operating departments in their respective accumulation areas. Containers are to be sealed when 90% full (approximately 3 inches from the top), or when 60 days have elapsed from the time waste material is first placed in the container, whichever occurs first.

7. Environmental Compliance will ensure that hazardous waste holding tank contents and hazardous waste containers are removed from DAC premises in accordance with applicable statutes and regulations, and within 90 days or less from the time hazardous waste was first placed into the container or holding tank. Exemptions from the 90 day time limit may apply to certain recyclable wastes.

8. Environmental Compliance is responsible for preparing an appropriate hazardous waste manifest for each hazardous waste shipment removed from DAC premises by licensed hazardous waste haulers for off-site disposal. For certain hazardous waste shipments to be sold or recycled, Product Center Operations (PCO Support Operations - Surplus & Reclamation Management) or Environmental Compliance will prepare a Hazardous Waste Manifest, or similar document, and forward copies to Environmental Compliance, as required.

9. Environmental Compliance will retain the "generator" copy of each hazardous waste manifest until a signed copy is received from the designated off-site disposal or recycling facility. This signed copy will be retained for at least 3 years from the date the waste was accepted by the initial transporter (industrial waste hauler). If a copy of the manifest, with the handwritten signature of the owner/operator of the designated off-site disposal facility, is not received within 35 days of the date the waste was accepted by the initial transporter, Environmental Compliance will contact the transporter and/or owner/operator of the designated facility to determine the status of the hazardous waste. If the return copy has not been received within 45 days, Environmental Compliance will file an Exception Generator Report as required by applicable government regulations.

10. Local supervision will ensure that hazardous waste is deposited only in specified containers, control access of DAC personnel to hazardous waste containers and holding tanks, and ensure compliance with the applicable provisions of this DAC Procedure.

11. Environmental Compliance will determine and arrange the required training for employees involved in hazardous waste handling or disposal. Training records will be maintained as required by applicable regulations.

12. Environmental Compliance will identify each hazardous waste holding tank on DAC premises as to its contents per applicable laws and regulations.

    Note: UNDER NO CIRCUMSTANCES SHALL ANY MATERIAL, OTHER THAN WHAT IS IDENTIFIED, BE ENTERED INTO A HAZARDOUS WASTE HOLDING TANK.

13. Environmental Compliance will maintain a reserve of containers for compatible types of hazardous wastes generated at DAC. These containers will be issued upon request by local supervision and are to be used for the temporary accumulation of hazardous waste generated in work operations.

14. Environmental Compliance is responsible for coordinating the removal of hazardous waste containers from the accumulation areas.

15. No employee shall move or transport containers holding identified hazardous waste unless the containers are tightly sealed and safely secured to the transport vehicle. For containers with unknown contents, contact Fire Services immediately.

16. Organizations that must dispose of small, original containers of hazardous waste will contact Environmental Compliance to arrange for disposal.

17. Environmental Compliance is responsible for obtaining the identification of unidentified wastes for the purpose of handling, processing, transporting, shipping, or disposing.

18. As required by government regulations, Environmental Compliance is responsible for ensuring that the provisions of this procedure are monitored plant-wide, including hazardous waste accumulation areas. Form DAC 30-2495 (Series), Hazardous Waste Inspection Checklist, may be used as guidelines for these inspections.

19. Fire Services will conduct periodic inspections of waste accumulation areas to ensure compliance with standard fire protection procedures. Environmental discrepancies observed will be reported to Environmental Compliance for appropriate corrective action.

20. To prevent mixing of incompatible materials, empty drums will be returned to the hazardous waste yard.

21. Containers holding any hazardous waste (including contaminated rags) must be kept closed except when placing wastes into, or removing wastes from containers. (Reference DAC Procedure DAC-010, *Fire Regulations - Aircraft Manufacturing and Delivery (Flight Ramp) Areas.*)

22. All DAC employees are responsible for reporting spills, or other emergencies involving hazardous materials or wastes, to Fire Services. This includes spills on DAC property, unauthorized discharges into sewers and storm drains, and any other emergencies involving hazardous wastes.

23. Environmental Compliance is responsible for the preparation and maintenance of the C1 (Long Beach location) and C6 (Torrance location) *Hazardous Materials/Wastes Contingency Plans* These contingency plans shall outline the responsibilities of each affected DAC organization in emergency situations and shall detail the type and location of available emergency response equipment. Contingency plans will be developed for all other DAC locations in accordance with all applicable government statutes and regulations, as required. As appropriate, contingency plans will be coordinated with the *Facilities Disaster Manual.*

24. All practicable measures will be taken to prevent any accidental discharge of hazardous materials or wastes into the storm drain system. All storm drain openings at DAC locations will be marked "STORM DRAIN - NO DUMPING" or similar marking.

25. The public release of information regarding spills, discharges into storm drains, fires, explosions and any other incidents involving hazardous materials or wastes will be initially reviewed by Environmental Compliance to ensure the accuracy, appropriateness, and completeness of the data prior to release by Human Resources (Communications - Public Relations). (Reference DAC Procedure DAC-014, *Release of Information and Government Agency Contacts.*)

E. ACTIONS: I. MANAGING HAZARDOUS WASTE CONTAINERS

Waste Generating Organization - Local Supervision

1. Prepare Form DAC 70-384, Hazardous Waste Container Requisition, identifying the types of hazardous waste for which the containers will be used, and forward to Human Resources (Safety And Environmental Affairs - Environmental Compliance).

   Note: An equivalent tracking system to manage containers at satellite accumulation areas may be used at some DAC locations with the approval of the C1 Environmental Compliance organization.

Human Resources (Safety And Environmental Affairs - Environmental Compliance)

2. Review the request and verify that the requisition has been signed by a supervisor who is familiar with the provisions of this procedure.

3. Approve the request by signing Form DAC 70-384; and select a container suitable for the hazardous waste specified.

4. Stencil on the container the designated type of hazardous waste for which that container is intended, as specified on the requesting document.

5. Forward the stenciled container to the requester.

6. Establish and maintain records of approved Forms DAC 70-384 which identify the locations and types of hazardous waste on DAC premises.

Waste Generating Organization Local Supervisor/Environmental Compliance

7. Prepare Form DAC 22-209, Waste Disposal Label, identifying the waste material and indicating the date waste was first placed in the container. Affix form to container.

8. Monitor the fluid level of hazardous waste containers. Seal containers when they are 90% full (3 inches from the top) or when 60 days has elapsed from the time waste was first placed in the container, whichever occurs first.

   Note: Notify Fire Services when a leaking container is detected, for handling in accordance with Paragraph E. ACTIONS IV.

9. Contact Environmental Compliance who is responsible for coordinating the removal and arranging for transport of the hazardous waste from the generating area to the hazardous waste yard.

   Note: In some DAC locations Environmental Compliance may be contacted via the plant trouble call desk.

Environmental Compliance

10. Identify the accumulation start date, and ensure wastes are stored in compliance with applicable regulations, and are removed from DAC premises within 90 days of the accumulation start date.

Strategic Business & Technology Development (Test & Evaluation Laboratories - Materials & Processes Technical Laboratory)

11. Provide Environmental Compliance with information as required to complete the hazardous waste manifest.

Product Center Operations (PCO Support Operations - Surplus & Reclamation Management)

12. Complete Form DAC 70-375 Hazardous Waste Label, as appropriate, and affix to container with other hazardous material warning labels or markings, as required. (Reference DPS 3.310-10 *Preparation of Hazardous Material for Shipment.*)

Environmental Compliance/Surplus & Reclamation Management

13. Arrange with an approved hazardous waste hauler for transportation to an approved disposal or recycling facility. (Reference Paragraph D.8.)

14. Prepare a hazardous waste manifest or similar document in accordance with the current hazardous waste and recycling requirements of applicable laws and regulations.

Environmental Compliance

15. Retain manifest copies and related attachments in accordance with applicable government regulations, and forward copies to appropriate government agencies, as required.

ACTIONS: II. MANAGING HAZARDOUS WASTE FROM CHEMICAL PROCESS TANKS

Quality Assurance (Process Verification)

1. Initiate Form DAC 2-441, Chemical and Maintenance Request, for disposal of hazardous waste in a chemical process tank and forward to Environmental Compliance, when required, in accordance with DAC Procedure DAC-085, *Control/Use of Process/Thermal Equipment and Freezers/Holding Boxes.*

   Note: Form DAC 2-441 will include the percentage breakdown of the constituents of the waste, as analyzed, and will state which tank contents can be combined into one load.

Materials & Processes Technical Laboratory

2. Provide Environmental Compliance with information, as required, to complete the hazardous waste manifest.

Environmental Compliance

3. Proceed in accordance with Paragraphs E.I.13 through E.I.15.

ACTIONS: III. MANAGING HAZARDOUS WASTE HOLDING TANKS

Environmental Compliance/Using Organization

1. Record the date of initial waste deposit on the log sheet adjacent to the hazardous waste holding tank.

   Note: Do not mix incompatible hazardous wastes. When in doubt contact Environmental Compliance for guidance.

Environmental Compliance

2. Monitor the fluid level and elapsed time since initial introduction of waste in accordance with the provisions of Paragraph D.7.

Materials & Processes Technical Laboratory

1 Analyze the contents of the hazardous waste holding tanks prior to disposal, as required, and provide Environmental Compliance with appropriate information to complete the hazardous waste manifest.

Environmental Compliance/Surplus & Reclamation Management

Monitor contractor removal of hazardous liquid wastes from DAC premises until operations are completed.

Proceed in accordance with Paragraphs E.I.13 through E.I.15.

E. ACTIONS: IV. SPILLS OR OTHER EMERGENCIES INVOLVING HAZARDOUS MATERIALS OR WASTES

Affected Organizations

1. Notify Human Resources (Security & Fire Services - Fire Services) immediately when a spill or other emergency occurs.
2. Report accurately the type, quantity, location and direction of flow of the spilled substance. Indicate whether a fire or explosion has occurred and whether fumes are present.

   Note: Response to spills and other emergencies will follow the procedures outlined in the Hazardous Materials/Wastes Contingency Plan.

Human Resources (Security & Fire Services - Fire Services)

3. Prepare and retain written reports of spills/emergencies. Forward copies of reports to Environmental Compliance.

Environmental Compliance

4. Provide notification of spills/emergencies to regulatory agencies and Human Resources (Communications - Public Relations), as applicable.

F. ATTACHMENTS:

NONE.

G. REFERENCES:

General	
DAC-010	Fire Regulations - Aircraft Manufacturing and Delivery (Flight Ramp) Areas
DAC-014	Release of Information and Government Agency Contacts
DAC-085	Control/Use of Process/Thermal Equipment and Freezers/Holding Boxes
DPS 3.310-10	Preparation of Hazardous Material for Shipment
Forms	
DAC 2-441	Chemical and Maintenance Request
DAC 22-209	Waste Disposal Label
DAC 30-637	Speedimemo
DAC 30-2495 (Series)	Hazardous Waste Inspection Checklist
DAC 70-375	Hazardous Waste Label - C1
DAC 70-375-1	Hazardous Waste Label - C6
DAC 70-384	Hazardous Waste Container Requisition

Manuals/Plans

Facilities Disaster Manual

Hazardous Materials/Wastes Contingency Plan for C1

Hazardous Materials/Wastes Contingency Plan for C6

vision Notes:

This document supersedes, and is a complete replacement for, CP DAC 5.031, *Hazardous Waste Management*.

Analyst:

A. M. Vlahos X68798

Appendix H

APPENDIX H

PERMITS

C-1, C-17

State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

Order No. 90-099

~~C6~~

NPDES NO. CA0001406 ~~CA0001414~~

WASTE DISCHARGE REQUIREMENTS
FOR
DOUGLAS AIRCRAFT COMPANY
(Long Beach Facility)

The California Regional Water Quality Control Board, Los Angeles Region, finds:

1. Douglas Aircraft Company, a subsidiary of McDonnell Douglas Corporation, discharges wastes under waste discharge requirements contained in Order No. 78-8 adopted by this Board on January 23, 1978, and subsequently readopted by Order No. 83-3 on January 24, 1983.

2. Douglas Aircraft Company has filed a report of waste discharge and has applied for renewal of its waste discharge requirements and National Pollutant Discharge Elimination System (NPDES) Permit.

3. Douglas Aircraft Company operates aircraft manufacturing, repair, and modification facilities at 3855 Lakewood Boulevard, Long Beach, California, and discharges wastes to a flood control channel located on the alignment of Keynote Street. The wastes flow to Los Cerritos Channel, above the tidal prism, thence to Alamitos Bay, a water of the United States.

The discharges are described as follows:

Discharge Serial No. 001 - up to 6,000 gallons per day of cooling tower bleed-off and emergency stationary fire pump radiator cooling water is discharged to adjacent storm drains at Wardlow and Cherry Avenue.

Discharge Serial No. 002 - up to 32,300 gallons per day of rainfall runoff from an aircraft wash area is discharged through a three-stage clarifier to the storm drain. During dry weather or light rains (less than 0.1 inch within 15 minutes), drainage from this area is discharged to the sanitary sewer.

Discharge Serial No. 003 - up to 650,000 gallons per day of cooling tower bleed-off, single pass non-contact cooling

water, fire riser test water, boiler blowdown and storm water from the structural test slabs is discharged to storm drains at Lakewood and Conant Avenue.

4. The Board adopted a Water Quality Control Plan for Los Angeles River Basin on November 27,1978. The Water Quality Control Plan contains water quality objectives for Los Cerritos Channel and Alamitos Bay. The requirements contained in this Order, as they are met, will be in conformance with the goals of the Water Quality Control Plan.

5. The beneficial uses of the receiving waters are: (within the tidal prism) industrial service supply, non-contact water recreation, ocean sport and commercial fishing, preservation of rare and endangered species, marine habitat, shellfish harvesting, and saline water habitat.

6. The issuance of waste dishcarge requirements for this discharge is excempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code in accordance with Water Code Section 13389.

The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

The Board in a public hearing heard and considered all comments pertaining to the discharge and to the tentative requirements.

This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Clean Water Act, or amendments thereto, and shall take effect at the end of ten days from the date of its adoption, provided the Regional Administrator, EPA, has no objections.

IT IS HEREBY ORDERED, that Douglas Aircraft Company, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

I. Effluent Limitations

A. Wastes discharged shall be limited to cooling tower bleedoff, storm runoff, emergency stationary fire pump radiator cooling water, single pass non-contact cooling water, fire riser test water and boiler blowdown, as proposed.

B. The discharge of an effluent in excess of the following limits is prohibited:

(a) For Discharge Serial Nos.001 and 003.

Constituent	Units	Discharge Limitations 30-Day Average	Maximum
Settleable solids	mg/l	0.1	0.3
Suspended solids	mg/l	50	150
	lbs/day*	273	820
$BOD_5 20^0c$	mg/l	20	60
	lbs/day*	109	327
Oil and grease	mg/l	10	15
	lbs/day*	54.8	82

* Based on total waste flow of 656,000 gallons per day.

(b) For Discharge Serial No.002

Constitute	Units	Discharge Limitations Maximum
$BOD_5 20^0c$	mg/l	30
	lbs/day*	8.0
Oil & grease	mg/l	15
	lbs/day*	4.0
Surfactants	mg/l	0.5
(MBAS)	lbs/day*	.135

* Based on maximum flow of 32,300 gpd.

C. The toxicity of the effluent shall be such that the average survival in undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay test shall be at least 90%, with no single test producing less than 70% survival.

II. Requirements and Provisions

This Order includes the attached "Standard Provisions and General Monitoring and Reporting Requirements."

III. Expiration Date

This Order expires on July 10, 1995

The discharger must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of such date as application for issuance of new waste dishcarge requirements

IV. Rescission

Order No. 83-3, adopted by this Board on January 24, 1983, is hereby rescinded.

I, Robert P. Ghirelli, Executive Officer, do hereby certify that the foregoing is full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region on July 30, 1990.

Robert P. Ghirelli

ROBERT P. GHIRELLI, D. Env.
Executive Officer

mlc/d3/doug.wdr

ATE OF CALIFORNIA
GEORGE DEUKMEJIAN, *Governor*

IFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
ANGELES REGION

7 SOUTH BROADWAY, SUITE 4027
ANGELES, CALIFORNIA 90012-4596
620-4460
-621-6290

October 31, 1986

Mr. J.H. Douez
Vice President, Manufacturing
Douglas Aircraft Company
3855 Lakewood Boulevard
Long Beach, CA 90846

WASTE DISCHARGE REQUIREMENTS (NPDES PERMIT NO. CA0001414) (CI 5999)

Our letter dated September 17, 1986, transmitted tentative requirements for your disposal of wastewater to Dominguez Channel.

Pursuant to Division 7 of the California Water Code, this California Regional Water Quality Control Board, at a public hearing held on October 28, 1986, reviewed these tentative requirements, considered all factors in the case, and adopted Order No. 86-78 (copy attached) relative to this waste discharge. This Order serves as a permit under the National Pollutant Discharge Elimination System, and expires October 10, 1991. Please note that you must file an application for a new permit at least 180 days in advance of that date.

You are required to implement the monitoring program as stated in the Monitoring and Reporting Program on the effective date of this Order. Please note that any monitoring report due under your previous Monitoring and Reporting Program is still required and must be submitted by the due date. Please reference all technical and monitoring reports to our Compliance File No. 5999. We would appreciate it if you would not combine other reports, such as progress or technical reports, with your monitoring reports but would submit each type of report as a separate document.

If you have any questions, please call ~~Mercedes Hsu~~ at (213) 620-5635.

Robert P. Ghirelli

ROBERT P. GHIRELLI, D.Env.
Executive Officer

XAVIER SWAMIKANNU (213)266-7592

MH:sml

cc: See attached mailing list

Enclosures

Douglas Aircraft Company
Mailing List

Environmental Protection Agency, Region 9, (W-5-1)
United States Army Corps of Engineers
Mr. Archie Matthews, State Water Resources Control Board, Division of Water Quality
Ms. Bonnie Wolstoncroft, State Water Resources Control Board, Division of Water Quality, Office of Chief Counsel
Department of Fish and Game, Region 5
Department of Water Resources
Department of Health Services, Sanitary Engineering Branch
Los Angeles County Department of Public Works, Hydraulic and Water Conservation Division
City of Torrance

State of California
Resources Agency
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

ORDER NO. 86-78

NPDES NO. CA0001414

WASTE DISCHARGE REQUIREMENTS FOR DOUGLAS AIRCRAFT COMPANY (Torrance Facility)

The California Regional Water Quality Control Board, Los Angeles Region, finds:

1. Douglas Aircraft Company, a Division of McDonnell Douglas Corporation, discharges under discharge requirements contained in Order No. 81-50 (NPDES Permit No. CA0001414) adopted by this Board on October 26, 1981.

2. Douglas Aircraft Company has filed a report of waste discharge and has applied for renewal of its waste discharge requirements and National Pollutant Discharge Elimination System (NPDES) Permit for discharge of wastes to Dominguez Channel.

3. Douglas Aircraft Company manufactures aircraft at its Torrance Facility located at 190th Street and Normandie Avenue, Torrance, California, and discharges up to 25,000 gallons per day of cooling tower bleed-off, single-pass non-contact cooling water and fire sprinkler test water into the plant's storm drain system, thence into an underground storm drain at a point near the intersection of 190th Street and Normandie Avenue. The wastes flow to Dominguez Channel, a water of the United States, at 190th Street, within the tidal prism.

   Boiler blowdown wastes are discharged to the municipal sewage system.

4. The Board adopted a revised Water Quality Control Plan for Los Angeles River Basin on November 27, 1978. The Plan contains water quality objectives for Dominguez Channel. The requirements contained in this Order, as they are met, will be in conformance with the goals of the Water Quality Control Plan.

5. The beneficial uses of the receiving waters are: non-contact water recreation, preservation of rare and endangered species, marine habitat, and saline water habitat.

6. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21000) of Division 13 of the Public Resources Code in accordance with Water Code Section 13389.

The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

The Board in a public hearing heard and considered all comments pertaining to the discharge and to the tentative requirements.

This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Clean Water Act, or amendments thereto, and shall take effect at the end of ten days from the date of its adoption, provided the Regional Administrator, EPA, has no objections.

IT IS HEREBY ORDERED, that Douglas Aircraft Company

in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Effluent Limitations:

1. Wastes discharged shall be limited to cooling tower bleed-off, single-pass non-contact cooling water and fire sprinkler test water.

2. The discharge of an effluent in excess of the following limits is prohibited:

		Discharge Limitations	
Constituent	Unit	30-Day Average	Maximum
Suspended solids	mg/l	50	150
	lbs/day*	10.4	31.3
Settleable solids	ml/l	0.1	0.3
BOD_5 20°C	mg/l	20	60
	lbs/day*	4.17	12.5
Oil and grease	mg/l	10	15
	lbs/day*	2.01	3.13

* Based on a total waste flow of 25,000 gallons per day.

II. Requirements and Provisions

This Order includes the attached "Standard Provisions and General Monitoring and Reporting Requirements.

III. Expiration Date

This Order expires on October 10, 1991.

The discharger must file a Report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

IV. Rescission

Order No. 81-50, adopted by this Board on October 26, 1981, is hereby rescinded.

I, Robert P. Ghirelli, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region on October 28, 1986.

Robert P. Ghirelli

ROBERT P. GHIRELLI, D.Env.
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

STANDARD PROVISIONS AND GENERAL MONITORING AND
REPORTING REQUIREMENTS

A. General Requirements

1. Neither the disposal nor any handling of waste shall cause pollution or nuisance.

2. Wastes discharged shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.

3. This discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Federal Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

4. Wastes discharged shall not contain visible oil or grease, and shall not cause the appearance of grease, oil or oily slick, or persistent foam in the receiving waters or on channel banks, walls, inverts or other structures.

5. Wastes discharged shall not increase the natural turbidity of the receiving waters at the time of discharge.

6. Wastes discharged shall not cause the formation of sludge deposits.

7. Wastes discharged shall not damage flood control structures or facilities.

8. Oil or oily material, chemicals, refuse, or other pollutionable materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property or discharged to surface waters. Any spill of such materials shall be contained and removed immediately.

9. The pH of wastes discharged shall at all times be within the range 6.0 to 9.0.

10. The temperature of wastes discharged shall not exceed 100°F.

11. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

12. Effluent limitation standards established pursuant to Section 301 of the Federal Clean Water Act and amendments thereto are applicable to the discharge.

B. General Provisions

1. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from his liabilities under federal, state, or local laws, nor guarantee the discharger a capacity right in the receiving waters.

2. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility, and they leave unaffected any further restraint on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.

3. The discharger must comply with all of the terms, requirements and conditions of this Order. Any violation of this Order constitutes a violation of the Clean Water Act, its regulations and the California Water Code, and is grounds for enforcement action, Order termination, Order revocation and reissuance, denial of an application for reissuance; or a combination thereof.

4. A copy of these waste discharge specifications shall be maintained at the discharge facility so as to be available at all times to operating personnel.

5. Any discharge of wastes at any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of the Order.

6. The Regional Board, EPA, and other authorized representatives shall be allowed:

   (a) Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;

   (b) Access to copy any records that are kept under the conditions of this Order;

   (c) to inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

(d) To photograph, sample, and monitor for the purpose of assuring compliance with this Order, or as otherwise authorized by the Clean Water Act and the California Water Code.

7. If the discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the discharger must apply for and obtain a new Order.

8. The discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. If a toxic effluent standard or prohibition is established for a toxic pollutant which is present in the discharge authorized herein and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition and so notify the discharger.

9. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:

(a) Violation of any term or condition contained in this Order;

(b) Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;

(c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

10. In the event the discharger is unable to comply with any of the conditions of this Order due to:

(a) breakdown of waste treatment equipment;

(b) accidents caused by human error or negligence; or

(c) other causes such as acts of nature,

the discharger shall notify the Executive Officer by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the the telephone notification. The written notification shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to correct the problem and the dates thereof, and what steps are being taken to prevent the problem from recurring.

11. If there is any storage of hazardous or toxic materials or hydrocarbons at this facility and if the facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.

12. The discharger shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.

13. The discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the discharger to achieve compliance with this Order. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a discharger only when necessary to achieve compliance with the conditions of this Order.

14. This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the discharger for a modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

15. This Order does not convey any property rights of any sort, or any exclusive privilege.

16. The discharger shall furnish, within a reasonable time, any information the Regional Board or EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.

17. All applications, reports, or information submitted to the Regional Board shall be signed:

    (a) In the case of corporations, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates;

    (b) In the case of a partnership, by a general partner;

    (c) In the case of a sole proprietorship, by the proprietor;

    (d) In the case of municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

18. The discharger shall notify the Board of;

    (a) new introduction into such works of pollutants from a source which would be a new source as defined in Section 306 of the Federal Clean Water Act, or amendments thereto, if such source were discharging pollutants to the waters of the United States,

    (b) new introductions of pollutants into such works from a source which would be subject to Section 301 of the Federal Clean Water Act, or amendments thereto, if substantial change in the volume or character of pollutants being introduced into such works by a source introducing pollutants into such works at the time the waste discharge requirements were adopted.

    Notice shall include a description of the quantity and quality of pollutants and the impact of such change on the quantity and quality of effluent from such publicly owned treatment works. A substantial change in volume is considered an increase of ten percent in the mean dry-weather flow rate. The discharger shall forward a copy of such notice directly to the Regional Administrator.

19. The discharger shall notify the Board not later than 120 days in advance of implementation of any plans to alter production capacity of the product line of the manufacturing, producing or processing facility by more than ten percent. Such notification shall include estimates of proposed production rate, the type of process, and projected effects on effluent quality. Notification shall include submittal of a new report of waste discharge and appropriate filing fee.

20. The discharger shall give advance notice to the Regional Board as soon as possible of any planned physical alterations or additions to the facility or of any planned changes in the facility or activity that may result in noncompliance with requirements.

21. The discharger shall file with the Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge.

22. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Regional Board as soon as they know or have reason to believe:

    (a) that any activity has occurred or will occur that would result in the discharge of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels:"

(i) One hundred micrograms per liter (100 ug/l);

(ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application; or

(iv) The level established by the Regional Board in accordance with 40 CFR 122.44(f).

(b) that they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant that was not reported in their application.

23. Bypass (the intentional diversion of waste streams from any portion of a treatment facility) is prohibited. The Regional Board may take enforcement action against the discharger for bypass unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.);

(b) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that could occur during normal periods of equipment downtime or preventive maintenance; and

(c) The discharger submitted a notice at least ten days in advance of the need for a bypass to the Regional Board.

The discharger may allow a bypass to occur that does not cause effluent limitations to be exceeded, but only if it is for essential maintenance to assure efficient operation. In such a case, the above bypass conditions are not applicable.

The discharger shall submit notice of an unanticipated bypass as required in E-16.

24. A discharger that wishes to establish the affirmative defense of an upset in an action brought for noncompliance shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

    (a) an upset occurred and that the discharger can identify the cause(s) of the upset;

    (b) the permitted facility was being properly operated at the time of the upset;

    (c) the discharger submitted notice of the upset as required in E-16; and

    (d) the discharger complied with any remedial measures required.

    No determination made before an action for noncompliance, such as during administrative review of claims that noncompliance was caused by an upset, is final administrative action subject to judicial review.

    In any enforcement proceeding, the discharger seeking to establish the occurrence of an upset has the burden of proof.

25. This Order is not transferable to any person except after notice to the Regional Board. In the event of any change in name, ownership, or control of these waste disposal facilities, the discharger shall notify this Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Board. The Regional Board may require modification or revocation and reissuance of the Order to change the name of the discharger and incorporate such other requirements as may be necessary under the Clean Water Act.

C. Enforcement

1. The California Water Code provides that any person who violates a waste discharge requirement or a provision of the California Water Code is subject to civil penalties of up to $5,000 per day, $10,000 per day, or $25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to $10 per gallon per day or $20 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.

    Violation of any of the provisions of the NPDES program or of any of the provisions of this Order may subject the violator to any of the penalties described herein, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.

2. The Federal Clean Water Act (CWA) provides that any person who violates a permit condition implementing sections 301, 302, 306, 307, or 308 of the CWA is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing these sections of the CWA is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than 1 year, or both.

3. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

4. It shall not be a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order.

5. The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

D. Monitoring Requirements

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

2. The discharger shall retain records of all monitoring information, including all calibration and maintenance monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the Report of Waste Discharge and application for this Order, for a period of at least three years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Board or EPA at any time and shall be extended during the course of any unresolved litigation regarding this discharge.

3. Records of monitoring information shall include:

   (i) The date, exact place, and time of sampling or measurements;

   (ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

4. All sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this Order.

5. All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Water Resources Control Board or approved by the Executive Officer .

6. The discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to insure accuracy of measurements, or shall insure that both activities will be conducted.

7. The discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. The annual monitoring report required in E-8 shall also summarize the QA activities for the previous year. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or at least one sample per sampling period, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples.

When requested by the Board or EPA, the discharger will participate in the NPDES discharge monitoring report QA performance study. The discharger must have a success rate equal to or greater than 80%.

8. Effluent samples shall be taken downstream of any addition to the treatment works and prior to mixing with the receiving waters.

9. For parameters where both 30-day average and maximum limits are specified but where the monitoring frequency is less than four times a month, the following procedure shall apply:

(a) Initially, beginning not later than the first week of the second month after the adoption of this permit, a representative sample shall be obtained of each waste discharge at least once per week for at least four consecutive weeks and until compliance with the 30-day average limit has been demonstrated. Once compliance has been demonstrated, sampling and analyses shall revert to the frequency specified.

(b) If future analyses of two successive samples yield results greater than 90% of the maximum limit for a parameter, the sampling frequency for that parameter shall be increased (within one week of receiving the laboratory result on the second sample) to a minimum of once weekly until at least four consecutive weekly samples have been obtained and compliance with the 30-day average limit has been demonstrated again and the discharger has set forth for the approval of the Executive Officer a program which ensures future compliance with the 30-day average limit.

E. Reporting Requirements

1. The discharger shall file with the Board technical reports on self-monitoring work performed according to the detailed specifications contained in any Monitoring and Reporting Programs as directed by the Executive Officer.

2. In reporting the monitoring data, the discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernable. The data shall be summarized to demonstrate compliance with waste discharge requirements and, where applicable, shall include results of receiving water observations.

3. For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

4. The discharger shall submit to the Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.

5. The discharger shall file a technical report with this Board not later than 30 days after receipt of this Order, relative to the operation and maintenance program for this waste disposal facility. The information to be contained in that report shall include, as a minimum, the following:

(a) The name and address of the person or company responsible for operation and maintenance of the facility.

(b) Type of maintenance (preventive or corrective).

(c) Frequency of maintenance, if preventive.

If an operation and maintenance report has been supplied to the Board previously and there have been no changes, a second report need not be provided.

6. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program.

   (i) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

   (ii) If the discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136 or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

   (iii) Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this Order.

7. Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this Order shall be submitted no later than 14 days following each schedule date.

8. By March 1 of each year, the discharger shall submit an annual report to the Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the waste discharge requirements.

9. The discharger shall include in the annual report, an annual summary of the quantities of all chemicals, listed by both trade and chemical names, which are used for cooling and/or boiler water treatment and which are discharged.

10. Each monitoring report must affirm in writing that:

    "all analyses were conducted at a laboratory certified for such analyses by the State Water Resources Control Board or approved by the Executive Officer and in accordance with current EPA guideline procedures or as specified in this Monitoring Program".

11. Each report shall contain the following completed declaration:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on the _____ day of _____
at _____.

_____(Signature)

_____(Title)"

12. If no flow occurred during the reporting period, the monitoring report shall so state.

13. For any analyses performed for which no procedure is specified in the EPA guidelines or in the Monitoring and Reporting Program, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.

14. This Board requires the discharger to file with the Board, within 90 days after the effective date of this Order, a technical report on his preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report should:

    (a) Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.

    (b) Evaluate the effectiveness of present facilities and procedures and state when they became operational.

    (c) Describe facilities and procedures needed for effective preventive and contingency plans.

    (d) Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.

This Board, after review of the technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions may be incorporated as part of this Order, upon notice to the discharger.

15. In the event wastes are transported to a different disposal site during the report period, the following shall be reported in the monitoring report:

    (a) Types of wastes and quantity of each type;

    (b) Name and address for each hauler of wastes (or method of transport if other than by hauling); and

    (c) Location of the final point(s) of disposal for each type of waste.

    If no wastes are transported offsite during the reporting period, a statement to that effect shall be submitted.

16. The discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

    The following shall be included as information that must be reported within 24 hours under this paragraph:

    (a) Any unanticipated bypass that exceeds any effluent limitation in the Order.

    (b) Any uspet that exceeds any effluent limitation in the Order.

    (c) Violation of a maximum daily discharge limitation for any of the pollutants listed in this Order to be reported within 24 hours.

    The Regional Board may waive the above-required written report on a case-by-case basis.

17. Should the discharger discover that it failed to submit any relevant facts or that it submitted incorrect information in a report, it shall promptly submit the missing or correct information.

18. The discharger shall report all instances of noncompliance not otherwise reported at the time monitoring reports are submitted. The reports shall contain all information listed in E-16.

19. Each monitoring report shall state whether or not there was any change in the discharge as described in the Order during the reporting period.

20. The discharger shall mail a copy of each monitoring report to:

    (a) EXECUTIVE OFFICER
    CALIFORNIA REGIONAL WATER QUALITY
    CONTROL BOARD - LOS ANGELES REGION
    107 South Broadway - Room 4027
    Los Angeles, CA 90012-4596

    (b) A copy of such monitoring report for those discharges designated as a major discharge shall also be mailed to:

    REGIONAL ADMINISTRATOR
    ENVIRONMENTAL PROTECTION AGENCY
    Region 9
    215 Fremont Street
    San Francisco, CA 94105

F. Publicly Owned Wastewater Treatment Plant Requirements (Does not apply to any other type or class of discharger)

1. Publicly owned treatment works (POTWs) must provide adequate notice to the Regional Board of:

    (a) Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants.

    (b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the Order.

    Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

2. The discharger shall file a written report with the Board within 90 days after the average dry-weather waste flow for any month equals or exceeds 75 percent of the design capacity of his waste treatment and/or disposal facilities. The discharger's senior administrative officer shall sign a letter which transmits that report and certifies

that the policy-making body is adequately informed about it. The report shall include:

(a) Average daily flow for the month, the date on which the instantaneous peak flow occurred, the rate of that peak flow, and the total flow for that day.

(b) The discharger's best estimate of when the average daily dry-weather flow rate will equal or exceed the design capacity of his facilities.

(c) The discharger's intended schedule for studies, design, and other steps needed to provide additional capacity for his waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

3. The flow measurement system shall be calibrated at least once per year or more frequently, to ensure continued accuracy.

4. The discharger shall require any industrial user of the treatment works to comply with applicable service charges and toxic pretreatment standards promulgated in accordance with Sections 204(b), 307, and 308 of the Federal Clean Water Act or amendments thereto. The discharger shall require each individual user to submit periodic notice (over intervals not to exceed nine months) of progress toward compliance with applicable toxic and pretreatment standards developed pursuant to the Federal Clean Water Act or amendments thereto. The discharger shall forward a copy of such notice to the Board and the Regional Administrator.

5. Collected screening, sludges, and other solids removed from liquid wastes shall be disposed of at a legal point of disposal, and in accordance with the provisions of Division 7 of the California Water Code. For the purpose of this requirement, a legal point of disposal is defined as one for which waste discharge requirements have been prescribed by a Regional Water Quality Control Board and which is in full compliance therewith.

6. Supervisors and operators of publicly owned wastewater treatment plants shall possess a certificate of appropriate grade in accordance with regulations adopted by the State Water Resource Control Board.

The annual report required by E-8 shall address operator certification and provide a list of current operating personnel and their grade of certification. The report shall include the date of each facility's Operation and Maintenance Manual, the date the manual was last reviewed, and whether the manual is complete and valid for the current facilities. The report shall restate, for the record, the laboratories used by the discharger to monitor compliance with this order and permit and provide a summary of performance.

G. Definitions

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility whose operation is necessary to maintain compliance with the terms and conditions of this Order.

2. "Composite sample" means, for flow rate measurements, the arithmetic mean of no fewer than eight individual measurements taken at equal intervals for 24 hours or for the duration of discharge, whichever is shorter.

   "Composite sample" means, for other than flow rate measurement,

   (a) A combination of at least eight individual portions obtained at equal time intervals for 24 hours, or the duration of the discharge, whichever is shorter. The volume of each individual portion shall be directly proportional to the discharge flow rate at the time of sampling.

   OR

   (b) A combination of at least eight individual portions of equal volume obtained over a 24-hour period. The time interval will vary such that the volume of wastewater discharged between samplings remains constant.

   The compositing period shall equal the specified sampling period, or 24 hours, if no period is specified.

3. "Daily discharge" means:

   (a) For flow rate measurements, the average flow rate measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling.

   (b) For pollutant measurements, the concentration or mass emission rate measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling.

4. The "daily discharge rate" shall be obtained from the following calculation for any calendar day:

$$\text{Daily discharge rate} = \frac{8.34}{N} \sum_{1}^{N} Q_i C_i$$

in which N is the number of samples analyzed in any calendar day, Q_i and C_i are the flow rate (MGD) and the constituent concentration (mg/l) respectively, which are associated with each of the N grab samples which may be taken in any calendar day. If a composite

sample is taken, C_i is the concentration measured in the composite sample and Q_i is the average flow rate occurring during the period over which samples are composited.

5. "Daily maximum" limit means the maximum acceptable "daily discharge." For pollutant measurements, unless otherwise specified, the results to be compared to the "daily maximum" limit are based on "composite samples."

6. "Duly authorized representative" is one whose:

   (a) Authorization is made in writing by a principal executive officer or ranking elected official;

   (b) Authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

   (c) Written authorization is submitted to the Regional Board and EPA Region 9. If an authorization becomes no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements above must be submitted to the Regional Board and EPA Region 9 prior to or together with any reports, information, or applications to be signed by an authorized representative.

7. "Grab sample" is defined as any individual sample collected in a short period of time not exceeding 15 minutes. "Grab samples" shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with "daily maximum" limits and the "instantaneous maximum" limits.

8. "Hazardous substance" means any substance designated under 40 CFR 116 pursuant to Section 311 of the Clean Water Act.

9. "Heavy metals" are for purposes of this Order, arsenic, cadmium, chromium, copper, lead, mercury, silver, nickel,, and zinc.

10. "Instantaneous maximum" concentration is defined as the maximum value measured from any single "grab sample."

11. "Median" of an ordered set of values is that value below and above which there is an equal number of values, or which is the arithmetic mean of the two middle values, if there is no one middle value.

12. "Priority pollutants" are those constituents referred to in 40 CFR 401.15 and listed in the EPA NPDES Application Form 2C, pp. V-3 thru V-9.

13. "6-month median" means a moving "median" of daily values for any 180-day period in which daily values represent flow-weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred.

14. "7-day" and "30-day average" shall be the arithmetic average of the values of daily discharge calculated using the results of analyses of all samples collected during any 7 and 30 consecutive calendar day periods, respectively.

15. "Toxic pollutant" means any pollutant listed as toxic under Section 307(a)(1) of the Clean Water Act or under 40 CFR 122, Appendix D.

16. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with effluent limitations because of factors beyond the reasonable control of the discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper action.

Appendix I

APPENDIX I

DRUM TRACKER FORM

1991 DRUM TRACKER

DRUM NO.	CONTENTS	DATE ISSUED	LOCATION	DATE BACK AT YARD	MANIFEST #	DATE SHIPPED	TSDF	COMMENTS
92- 1268	SEALANT TUBES	3-23-92	BLDG. 13 C9	5-21-92	Emptied AT YARD			
					AR546072	4-20-92	RINECO	# 9106-1469
92- 1269	SEALANT TUBES	3-24-92	BLD13 C9	4-17-92	90387363	4-23-92	USPCI	# GM91-0595
92- 1270	Floor dry - oil	3-25-92	BC11 BLDG. 15	4-17-92	AR546075	8-21-92	RINECO	# 9106-1469
92- 1271	SEALANT TUBES	3-24-92	80 COMPACTOR	4-6-92				
92- 1272	AEROSOL CANS	3-25-92	80 COMPACTOR	4-17-92	EMPTIED AT YARD			
92- 1273	AEROSOL CANS	3-25-92	28 COMPACTOR	4-2-92	EMPTIED AT YARD			
92- 1274	AEROSOL CANS		28 COMPACTOR	3-30-92	EMPTIED AT YARD			
92- 1275	SEALANT TUBES	3-24-92	BLD 13 C 31	4-23-92	EMPTIED AT YARD			
					AR546072	4-20-92	RINECO	# 9106-1469
92- 1276	AEROSOL CANS	3-25-92	8 COMPACTOR	4-17-92	AR546072	4-20-92	RINECO	# 9106-1477
92- 1277	PAINT SLUDGE	3-23-92	HAZ. WASTE YARD	4-20-92 ↓	↓	↓	↓	↓
92- 1278	↓	↓	↓	4-20-92	AR546072	4-20-92	RINECO	# 9106-1469
92- 1279	SEALANT TUBES		HAZ WASTE YARD	3-23-92	90387363	4-23-92	USPCI	# GM91-0594
92- 1280	FLOOR DRY J.G	3-23-92		↓	↓	↓	↓	↓
92- 1281	↓	↓	↓	↓	↓	↓	↓	↓
92- 1282	↓	↓	↓			5-11-92	RINECO	# 9106-1469
92- 1283	SEALANT TUBES	3/24/92	BLDG #2 POST 1150 BC	4-28-92	AR546075	5-11-92	RINECO	# 9106-1469
92- 1284	SEALANT TUBES	3/24/92	BLDG 84 DEPT550 [illegible]	4-13-92	AR546075			
92- 1285	↓	↓	↓	4-13-92	EMPTIED AT YARD			
92- 1286	↓	↓	↓	5-28-92	EMPTIED AT YARD			
92- 1287	~~AEROSOL CANS~~ SEALANT TUBES	3 ↓	↓	4-13-92	AR546075	5-11-92	RINECO	# 9106-1469

E=EMPTY AT YARD; SS=SOLD TO SALVAGE; TK=PUT IN TANK; ST=SEALANT TUBES; R=RAGS; AC=AEROSOL CANS; PC=PAINT CANS; SOLV=SOLVENTS & PAINTS
CW=CHEMWASTE KETTELMAN; EN=ENSCO; RLNS=ROLLINS TEXAS; A2=APTEC II; ET=ETICAM; NI=NORRIS INDUSTRIES; APT-UT=APTUS UTAH; CT=CHEM TECH

PAGE ______

BOE-C6-0072577

1991 DRUM TRACKER

DRUM NO.	CONTENTS	DATE ISSUED	LOCATION	DATE BACK AT YARD	MANIFEST #	DATE SHIPPED	TSDF	COMMENTS
92-								
92-								
92-								
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E=EMPTY AT YARD; SS=SOLD TO SALVAGE; TK=PUT IN TANK; ST=SEALANT TUBES; R=RAGS; AC=AEROSOL CANS; PC=PAINT CANS; SOLV=SOLVENTS & PAINTS

CW=CHEMWASTE KETTELMAN; EN=ENSCO; RLNS=ROLLINS TEXAS; A2=APTEC II; ET=ETICAM; NI=NORRIS INDUSTRIES; APT-UT=APTUS UTAH; CT=CHEM TECH

Appendix J

JMM James M. Montgomery

APPENDIX J

HAZARDOUS WASTE MANIFEST SUMMARY FORM

MANIFEST NO.	DATE MANIFESTED	TRANSPORTER	DAC TANK NO.	CONTENTS	QUANTITY	CAT. NO./ DOT CLASS	DATE MANIF. RTN	TSDF	DISP METHOD	TAX CAT.	ACTUAL QUANTITY	DISPOSAL CHARGE	TRANSP. CHARGE	TOTAL CHARGE